

THE BRICKBUILDER.

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JANUARY 1905

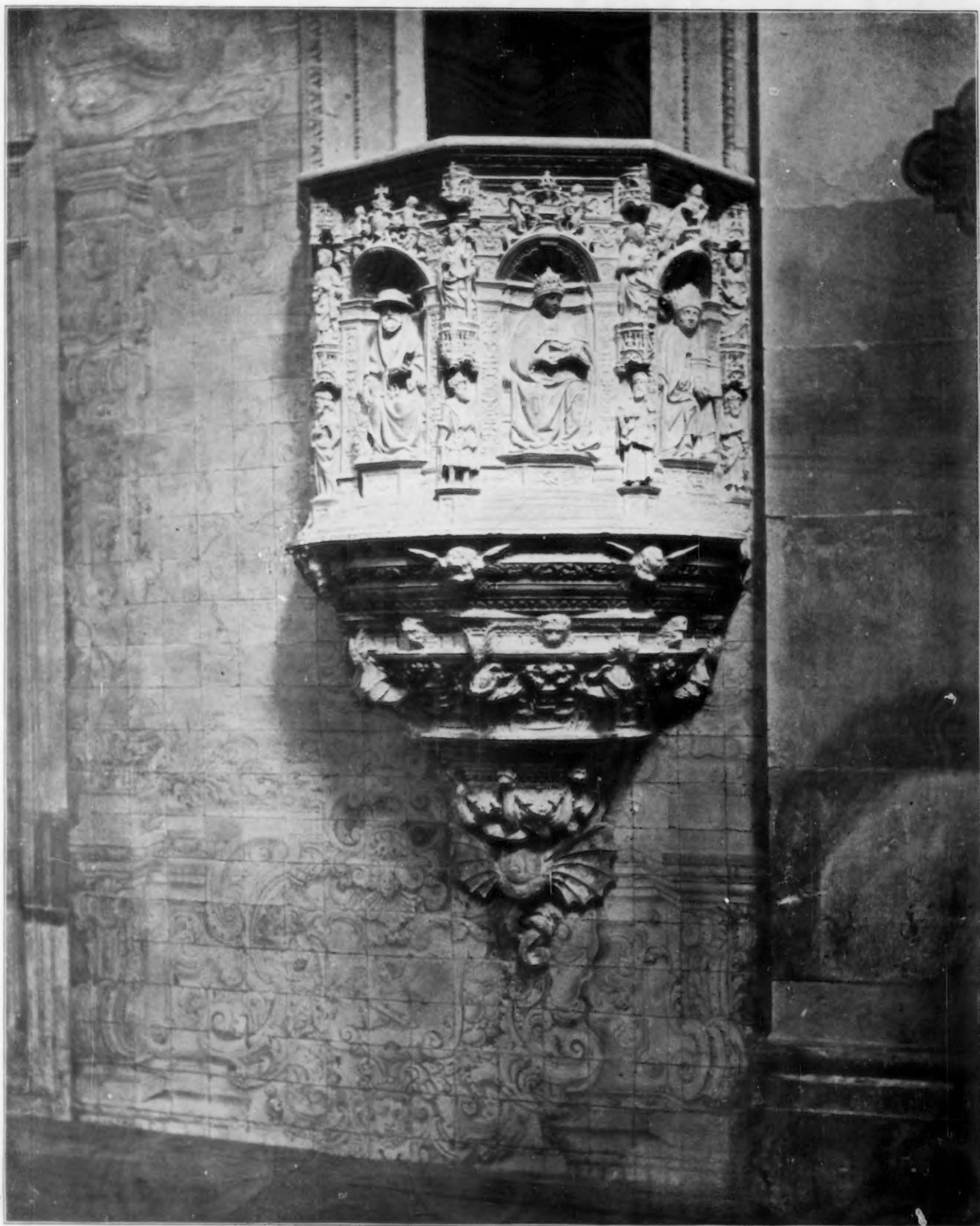
No. 1

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WILSON EYRE, ✓ CHARLES C. HAIGHT, ✓ NEWMAN & HARRIS, ✓
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PULPIT IN THE CATHEDRAL AT COIMBRA, PORTUGAL.

THE BRICKBUILDER

VOL. 14 No. 1 DEVOTED TO THE INTERESTS OF ARCHITECTURE IN MATERIALS OF CLAY JANUARY 1905

THE BRICKBUILDER.

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Results of the Church Competition.

THE jury for the Church Competition has awarded First Prize (\$500) to Addison B. Le Boutillier, 9 Acorn Street, Boston, Mass.; Second Prize (\$200) to Aymar Embury, 2d, Englewood, N. J.; Third Prize (\$100) to E. Donald Robb, 170 Fifth Avenue, New York City. Mention was given designs submitted by the following named: Gordon Allen and Frank E. Cleveland (associated), Boston; M. H. Smith, Boston; Harold W. Hathaway and William S. Wells (associated), Boston; William L. Welton, New York City; Russell Eason Hart, New York City; August Sieder, Jr., New York City; Robert Fockens, Boston.

THE PRIZE WINNERS.



MR. ADDISON B. LE BOUTILLIER.

ADDISON B. LE BOUTILLIER is thirty-two years old, a resident of Boston. Began his architectural training in the office of O. K. Foote, Rochester, N. Y., in 1891. Was afterwards in the office of S. S. Beman, Chicago, and Shepley, Rutan & Coolidge, Boston. Began practice for himself in 1894 in Boston, and has continued it ever since, with excep-



MR. AYMAR EMBURY, 2D.

tion of six months spent in study and travel in Italy and France during 1896. For the past three years Mr. Le Boutillier has given part of his time to The Grueby Faience Company as designer.

AYMAR EMBURY, 2d, is twenty-four years old, a resident of Englewood, N. J. Was graduated from Princeton University with the degree of civil engineer in 1900, was given the University fellowship in Archaeol-

ogy, and obtained the degree of Master of Science in 1901. Since leaving college he has worked in various offices, where his architectural education was obtained. Mr. Embury is instructor in architecture at Princeton this year.

E. DONALD ROBB is twenty-five years old, a resident of New York City. Was graduated in 1899 from Drexel Institute, Philadelphia. His early training was received in the offices of T. P. Chandler, Cope & Stewardson and Arthur H. Brockie of Philadelphia. At the present time Mr. Robb is connected with the New York office of Cram, Goodhue & Ferguson.



MR. E. DONALD ROBB.

THE AMERICAN INSTITUTE BANQUET.

THERE was a time not very long ago when the conventions of the American Institute of Architects were pretty dry, uninteresting affairs, which attracted almost no attention outside the profession and very little inside. But after such an affair as the banquet held in Washington at the last convention, it will behoove the managers of the Institute to continue the work therein begun of bringing the profession and the intelligent, educated public more closely in touch. If these annual conventions were simply to serve the purpose of a junket on the part of the delegates, with a number of technical papers thrown in, neither the profession nor the public would be much the gainer thereby. Certainly no other profession has such a claim on the interest and attention of those whom we call the leaders in all departments of literature, science and government as has architecture, and the conservative spirit which is so marked a feature of professional practice, while most excellent in its way, must give place to the progressive, broad-minded view which has animated the last convention and which has found so marked an expression in the assembly of such illustrious guests at the dinner. Such an event, developed in such a manner, means the best sort of progression. We need never fear that the profession will abandon any considerable portion of its conservative spirit and we should hope it never would, but we do need to get out from among ourselves, to let others see how we regard our work, and to give the busy men who control the affairs of this nation an opportunity to become acquainted with the points of view, the objects which are so dear to the heart of the architect. It remains to be seen what the next convention can do to keep up the procession, but it will be pretty hard to devise an evening more thoroughly enjoyable and valuable to all associated therewith than was the evening of the dinner at Washington.

A MEDAL OF HONOR.

THE New York Chapter of the American Institute of Architects has established a Medal of Honor for award to designers of buildings represented in the annual exhibitions of the Architectural League of New York, under conditions which ought to make this medal a very marked honor to its recipient. The choice is limited to any architectural work in any portion of the United States completed within five years previous to the date of exhibit, and in order to be eligible to the award the architect or architects must present for exhibition one or more photographs of executed work, also one or more drawings, including a small scale plan; and they must further submit to the jury such working drawings of the structure as they may desire to examine.

This action of the New York Chapter is a highly commendable one in many respects. It brings the League and the Chapter into a more cordial relationship, and will undoubtedly be the means of securing a larger and better exhibition of architectural work. Whether it really brings out the best work the country produces remains to be seen. Architects are generally more prone to exhibit drawings of proposed rather than executed work, and the constant trouble with past exhibitions has been they

included so many schemes and so relatively few of the most prominent buildings actually constructed. If the choice is a wise one it ought to go a long ways towards making the League exhibitions of greatly enhanced value. These exhibitions theoretically draw from all over the country, but they are practically limited almost entirely to the work of New York architects, and it may very well prove that the offering of this medal may have the effect of greatly increasing the contributions to the exhibition from outside of the city. Another effect of the offering of this medal may also, we hope, be to incite chapters in other cities to follow a similar procedure. A recognition of the work of the profession is always fitting, and it comes with a special grace for one of the oldest chapters of the Institute to offer this medal through the intermediary of the League.

DOING HIS BEST.

THERE are two causes which operate against the best architecture. One is the indifference of the client to artistic possibilities or requirements, and the other is the inertia or indifference of the architect himself in the busy world which stands for architectural practice to-day. The temptation is ever present to get work out of the way, get it accomplished, anything, almost, to have things done, and while the spur of necessity is sometimes an incentive for a man to do his best, it is also very often an excuse for him to quite fail of reaching his ideals. There are a few architects in this world who seem always to be putting their best efforts to the front, who seem so constituted that they can withstand the pressure of business and can take every problem, great or small, and treat it in the very best possible manner, doing always something that is interesting, always something that is worth studying. To mention only a few as types, the late H. H. Richardson was one; among our contemporaries, the English architect Lutyens is another; and there are others in this country we all know and whose work is invariably interesting, whether large or small, and whose artistic judgment commands the respect of every one. It is not wholly a question of natural endowment or education. Some of our most brilliant architects will repeatedly allow themselves to do work which they know is not worthy, nor studied, nor in which they can take any pride; but if we could all in our New-Year's resolves include a determination to at least try to let nothing go from our office which is not worthy, to never let ourselves become commonplace, to always think and show our thinking in our work, there would come very speedily a tremendous improvement in the quality of our national architecture. As a matter of fact, we generally do not use our best efforts. We become weary of trying to educate a client. The drudgery of office practice dulls the sharp edge of our artistic desires, or financial considerations compel us to treat our buildings as a manufacturer would treat his products, and bring them out as speedily as possible. We know better, and some day more of us will do better. For the present we can only be thankful for the saving leaven of the few who will not be hurried, who insist upon taking thought, and whose work shows in every line how fully their aspirations are reflected in the personality of their work.

Convention of the American Institute of Architects.

THE Thirty-eighth Annual Convention of the American Institute of Architects, held in Washington, January 11, 12 and 13, was in some respects the most remarkable assemblage of its kind this country has ever seen. It has come to be almost a truism that the people at large do not appreciate the standpoint of the architect nor understand his professional status, but this convention will go a long way towards advancing the position of the architect in the eyes of public men and of placing him in a category which is as gratifying as it is in some ways unexpected. On the evening of January 11 there was held in the large dining hall of the Arlington Hotel a dinner, which, by reason of the character of its guests, and also because of the after-dinner speeches which were there presented, will be almost epoch making and is certainly epoch marking.

The Arlington is not a magnificent specimen of architecture, and in its normal condition the dining hall is thoroughly uninteresting, but under the artistic direction of F. D. Millet the room was transformed. Ordinarily it presents an ugly walnut dado, with commonplace windows on the sides between broad, low pilasters. Mr. Millet covered the pilasters with plain surfaces of soft cream-colored cheese cloth. Upon each was arranged crossed palm branches behind simple escutcheons of bronze, bearing the names of the chapters. The spaces between the pilasters were covered with cheese cloth in regular, long vertical pleats, entirely concealing the windows. Above the windows a broad frieze of plain cheese cloth was carried entirely around the room to serve as a background for large swags of laurel, held at intervals by bronze escutcheons bearing the names of the states. Behind the President's seat were trophies of American flags and the name of the Institute, and each side of the ordinarily hideous mantelpiece, now entirely concealed by the decoration, were disposed groups of state flags in white, blue and gold. Just the right artistic touch was given to the whole decoration, and the effect was exceedingly satisfactory. But it was in the character of the guests and the speech making that this dinner excelled. President Roosevelt, the French Ambassador, Secretary Hay, Secretary Taft, Justice Harlan, Cardinal Gibbons, Bishop Satterlee, Senators Newlands, Aldrich, Nelson, Allison, Wetmore, Cockrell and Dryden, Hon. Elihu Root, Hon. Whitelaw Reid, J. Pierpont Morgan, President A. J. Cassatt, Lieutenant-General Chaffee, Augustus St. Gaudens, John La Farge, Dr. Nicholas Murray Butler, Henry Walters, Hon. S. P. Langle, E. H. Blashfield, Prof. Edward McDonald, Prof. Simon Newcomb, Henry Siddons Mowbray, and a long list of the most eminent men in the country in diplomatic, artistic and literary circles, including also Charles Dana Gibson and Mr. Dooley, occupied the long raised table extending around three sides of the room, the balance of the floor space being occupied by separate tables at which were many men known throughout the country mingled with the delegates and visiting architects. It was an assembly which it would be hard to equal anywhere, and the fact that these gentlemen were glad to assist at the convention dinner and took such an active interest in the proceedings

of the evening shows, perhaps better than any other one thing that has happened for years, how enormously the standard of the profession has increased. President Roosevelt gave one of his characteristic speeches, which was listened to most attentively. There was no disposition to resort to oratory. It was simply an expression of what he intended to impress upon men who are engaged in professional and business lives, and he particularly emphasized the point that the only way in which we can hope to have worthy artistic work done is by having such a growth of popular sentiment as will render it incumbent upon successive administrations to carry out steadily a plan chosen by them and worked out by experts. The best thing that any administration or that any executive department of government can do is, in his judgment, to surrender all these matters, within reasonable limits, to the guidance of those who really do know what they are talking about. "There are things in a nation's life more important than beauty; but beauty is very important. And in this nation of ours, while there is very much in which we have succeeded marvellously, I do not think that if we looked dispassionately we will say that beauty has been exactly the strong point. It rests largely with gatherings such as this, with the note that is set by such men as those I am addressing to-night, to determine whether or not this shall be true of the future." The President's address was most warmly received. The balance of the toast list included the following:

"The Simple Life," Hon. Elihu Root.

"The Supreme Court of the United States," Justice Harlan.

"The House of Representatives," Representative James T. McCleary of Minnesota.

"The President," by W. S. Eames, president of the American Institute of Architects.

"The Painters," John La Farge.

"The Sculptors," Augustus St. Gaudens.

"The Place of Art in Civilization," Nicholas Murray Butler and his Excellency Jules Jusserand, French Ambassador.

"Art and Religion," Cardinal Gibbons.

A signal for very general manifestations of approval was given when Charles F. McKim announced that Mr. J. Pierpont Morgan and Mr. Henry Walters had each given \$100,000 to secure the purchase of a permanent abode for the American Academy in Rome. This enterprise, which has been dear to Mr. McKim's heart for so many years, and which has enlisted so large a share of his time and money, is now on a permanent footing and will undoubtedly become an important factor in our national art life.

The exercises of the evening were not concluded until nearly two o'clock, but not for a moment did it drag or was there any lack of the most absorbing interest. The *Washington Times*, in its editorial the next day, made the emphatic statement that "Congressmen who are wise will follow the proceedings of the thirty-eighth annual convention of the American Institute of Architects. No other body, not even Congress excepted, stands guard on the development of the capital with equal watchfulness; and no other body, Congress still not excepted, will leave so deep an impression upon the Washington of the future."

Of the routine business of the convention, the first day was given up almost entirely to reports and organization. During the first day session extremely interesting papers were presented by R. Clipston Sturgis of Boston and William B. Mundie of Chicago, on the relations of architects with municipal school work. These two papers were in excellent contrast. In Boston we have passed through the stage of city architects having charge of all buildings, of specially appointed architects having charge of the work of the different departments, and have finally settled upon the plan of intrusting at least the schoolhouses entirely to a special commission. How thoroughly well this plan has worked is known to many of our readers, and will be further presented in detail during the coming year in these columns. In Chicago, on the other hand, they appear to have carried the development no further than to intrust all the work of the school department to a single architect under the immediate direction of the Board of Education. The excellence of Mr. Mundie's work is unquestioned, and we are aware that the commission idea has not been so successfully applied elsewhere as in Boston; but we do believe Chicago will ultimately adopt a plan more nearly akin to what is now working so well in Boston. Additional discussion on this subject was to have been presented by a paper from Mr. Ittner of St. Louis, but he was not able to be present or to send his paper.

William H. Russell presented a *résumé* of the methods of financing large building operations, throwing a very interesting side light on a function of the architect which has existed for only a very few years, and his remarks illustrated how the sternly practical requirements, the remorseless necessity of considering every expenditure as an investment and measuring its worth by the returns in money which it will afford, have influenced design. The large commercial building has forced the architect to be more than an artist, and the urgency of the problems has brought about a natural selection of the types and methods which are most desirable. Mr. Russell suggests in our office buildings that we could use more color, more bright terra-cotta, though, as he truly put it, color had better not be suggested by an architect until he is sure he will be employed, for the average business man looks askance at anything but monotonies.

Grosvenor Atterbury of New York gave a most instructive account of the systematic methods which he has evolved in his practice and by the aid of which he keeps control of his business, his contracts and his office force. All of the printed forms which Mr. Atterbury uses so freely were illustrated by lantern slides, and it is rather to be regretted that a natural feeling of hesitation on the part of delegates should have prevented them from a very frank and free discussion of Mr. Atterbury's paper. Generally speaking, the architect is apt to be lacking in systematic business ability, but this is a department of office work regarding which there is such a diversity of opinion that a full discussion would have proven very profitable to many who were present.

The relations of specialists to architects were discussed by C. T. Purdy of Purdy & Henderson, engineers, and Edgar V. Seeler of Philadelphia.

Mr. Purdy naturally spoke entirely from the standpoint of the specialist, and in our judgment his paper ignored one very simple remedy for the troubles which are sometimes involved in the specialties which go to make up a large modern building. The remedy is the most natural one in the world, namely, to educate more thoroughly our architects. Mr. Seeler included other specialists than the engineer, and called forth an applause of the convention by his objection to the term "landscape architect" as applied to those who lay out the grounds and the planting around a house. Such a calling is not, strictly speaking, architecture, and is admittedly obscurely named, but we are inclined to doubt whether a better title is likely to be found. The modern landscapist is certainly not a gardener; he certainly also is not an architect; and he really has less to do often with the landscape, as such, than the architect himself. Mr. Seeler expressed our sentiments exactly in his statement that there is no reason except acknowledged ignorance on the part of the architect why the architect and the specialist should not work side by side in perfect harmony, provided of course that the dominant mind is the architect's; and the remedy for any clash between the architect and the specialist lies, first, in the more complete education of the architect; and, second, in untiring supervision of the specialist's details.

In the discussion which followed, Mr. Post was quoted as stating that the employment of engineers to collaborate with the architect presented no objections to his mind, provided, however, the drawings were actually made in the office of the architect, as only so could the building be systematically developed.

In the evening Frank Miles Day presented before a large gathering a very interesting report on municipal improvement, showing the progress made in systematic grouping of buildings and parks throughout the country. This lecture was very freely illustrated by lantern slides showing the magnificent stations which are under construction for the Pennsylvania Railroad and the Grand Central at New York, and for the Pennsylvania and Baltimore & Ohio at Washington; also showing the improved park systems, improved means of transportation, the group plan at Cleveland, and many other of the municipal activities in our large cities which have sprung up within the last few years and which show such a widespread interest in public improvements.

The session of Friday was rather sparsely attended, many of the delegates having gone home. It is to be regretted that the interest should not be kept up at full heat until the very end of the convention, as many important questions had perforce to be decided on a dwindling quorum.

The Institute voted, upon a recommendation of Mr. Day, to take up for consideration at the next convention the subject of municipal improvement of recent years in Europe. This ought to be an extremely fruitful field for our delegates. A motion was also carried accepting for the Institute membership in the National Fire Protective Association, with the appointment of one or more delegates to represent it in that body. The convention also appointed a delegate to represent it on the National Electrical Code.

The Institute greatly enlarged this year its list of elections to honorary and associate membership extended to foreign architects of distinction. Mr. Ricardo Valázquez y Bosco, the president of the 1904 congress at Madrid, was elected to honorary membership. Mr. José Urioste y Velada, Mr. Enrique Repullés y Vargas, and Mr. Luis Cabello y Lapiedra were elected to associate membership. These names were presented by Mr. Hornblower, who also illustrated by means of the lantern some of the work by each of the architects. Mr. Day then presented the following English architects, showing the work of each with an admirable set of lantern slides: Richard Phene Spiers, honorary membership; Edwin L. Lutyens, corresponding membership; George Frederick Bodley, honorary membership. The Institute, upon presentation by W. A. Boring, also elected M. Daumet to honorary membership, and Gaston F. Redon and Henri Deglane to corresponding membership.

While the names of foreign members were being considered the delegates were balloting upon officers for the coming year, who were elected as follows: President, W. S. Eames, 1st Vice-President, Alfred Stone; 2d Vice-President, Cass Gilbert; Secretary and Treasurer, Glenn Brown; Directors, W. A. Boring, J. M. Donaldson, F. M. Day; Auditors, Robert Stead, J. G. Hill.

The following were also elected as Fellows of the Institute upon nomination of the Board of Directors: Grosvenor Atterbury, Henry F. Bigelow, Alfred B. Harlow, Irving K. Pond, C. B. J. Snyder.

At this convention the Institute made two modifications of the by-laws: the first increased the annual dues of Associates from \$5.00 to \$7.50, and of Fellows from \$10.00 to \$15.00. The necessity of this increase was partly to enable the Institute to carry out the work which has been assigned to it by successive conventions, and also to enable it to meet its obligations on the purchase of the Octagon House, Washington. The second change in the by-laws was aimed to do away with the present rather clumsy method of voting for membership in the Institute, under which the names of parties proposed are submitted for letter ballot to all members of the Institute from Maine to Manila. Under the revised by-law the member is balloted upon only by the chapter to which he belongs. If he is passed by the chapter, the Institute then sends his name to the various members throughout the country for comment, and the actual election is later by the Board of Directors. This means that practically the chapters elect the members of the Institute, a proceeding which is more in harmony with the delegate character of the Institute and one which will greatly lessen the machinery of election and give the individual chapters a larger voice in the selection of members.

The Institute was invited to hold its next meeting at Los Angeles, California, but no final vote was taken on the matter, it being left in the hands of the Board of Directors.

The convention was very largely attended, there being considerably over a hundred present. The delegates voting numbered something over eighty, and there was a sustained interest shown in the proceedings which was most encouraging to all who have the growth of the Institute at heart.

THE remarks of Mr. Frank Miles Day introducing and explaining the work of the English architects presented for honorary and corresponding membership in the American Institute of Architects will be of interest to our readers. The names of all these gentlemen are familiar to architects in this country, but we have not had full opportunity to appreciate as fully the character of their work as is shown by Mr. Day's well chosen words.

For honorary membership, Richard Phene Spiers, architect, Master of the Architectural School of the Royal Academy of Arts; Fellow of the Royal Institute of British Architects; Past President of the Architectural Association, London, and member of many learned societies; Gold Medalist, and Traveling Student of the Royal Academy of Arts; Soane Medalist and Traveling Student of the Royal Institute of British Architects; editor of a new edition of Ferguson's "History of Architecture," and author of many works on architecture and archaeology, not alone because his attainments have qualified him for that honorable distinction, but because he has acted as friend and adviser of many students, now members of this Institute, giving them kindly welcome, hearty sympathy and wise counsel.

For corresponding membership, Mr. Edwin L. Lutyens, architect, because in that fascinating yet difficult art of domestic architecture, in which the English hold so distinguished a place, Mr. Lutyens has, by the strong individuality of his design and the high qualities of his style, established for himself an unquestioned position among those who stand highest.

Choosing at random illustrations from the abundance of his work, we note at once the singular sympathy between the buildings and their surroundings. Even with the good fortune of having for client a man whose hobby is rose growing and wall gardening and building for him a house near a quiet English village, it takes a master hand to reach a result so filled with peace and contentment as in the Deanery at Sonning on Thames.

Strongly individual and little reminiscent, as parts of the house are of English precedent, there is nothing wilful in the apparent break with that precedent, but something that shows a constant striving for excellence rather than novelty.

But if in some cases Lutyens shows great freedom of treatment, he has in general a thorough knowledge of and marked respect for "the well-defined way of building of the country." For in England "every part of the country has its own traditional ways, and if these have in the course of many centuries become crystallized into any particular form, we may be sure that there is some good reason for it."

Of this respect for old methods, the house of Miss Gertrude Jekyll is a good example. She herself says of it that "It is designed and built in the honest spirit of old days, and the body of it, so fashioned and reared, has, as it were, taken to itself the soul of a more ancient dwelling place." The house is not in any way a copy of any old building, though it embodies the general characteristics of the older structures of its own district.

Because of the sustained interest of his work, because of its freshness joined with its respect for tradition, because of its sanity in the use of materials, but

most of all because of its high qualities of style, the Board commends for election, Edwin L. Lutyens.

For honorary membership, George Frederick Bodley, Fellow of the Royal Academy of Arts and Gold Medalist of the Royal Institute of British Architects, because to him more than to any other man is due the change that came over English ecclesiastical and collegiate architecture in the last quarter of the nineteenth century, a change from the uninspired manner of the revived Gothic to a manner marked with the impress of our own times and of the personalities of the men who work in it, a Gothic not merely revived but revived.

Mr. Bodley was Sir Gilbert Scott's first pupil. He served an old-fashioned five years' apprenticeship, lodging in his master's house. He was launched on the topmost tide of the Gothic revival. Drilled in the rigid convention of English Gothic, Mr. Bodley not unnaturally began his independent career with a revolt which led him to designing his first church in the utmost severity of form and detail and in an early French manner.

Within the next few years Mr. Bodley, in the fresh vigor of his young enthusiasm, was constantly and happily busy with new churches, and of these St. Martin's at Scarborough is one of the most interesting, not only for its intrinsic beauty and distinction, but for the fact that the architect here found a field in the decorative accessories for the co-operation of his friends and fellowenthusiasts, Rossetti, Madox Brown and William Morris.

In 1869 or even earlier Mr. Bodley began to work with Mr. Thomas Garner, an association that lasted for more than thirty years. There was never a deed of partnership or any legal form. Nothing could have been less commercial in character than the partnership which bore this conjunction of names, for it would be impossible to find two artists more absolutely divested of commercial habit or instinct than George Frederick Bodley or Thomas Garner.

As both men were strong designers and worked conjointly in designing many of their buildings, it is often difficult to distinguish their work.

In the innumerable opportunities that have fallen to Mr. Bodley's lot of repairing and adorning ancient buildings he has ever shown the most careful and tender solicitude for the preservation and expression of their intrinsic beauty and historic significance, and of the picturesque accretions of time, accident and traditional craftsmanship. Of this the old village church of Hickleton near Doncaster is an example.

For the last thirty years Mr. Bodley's Gothic has always been, in so far as constructive detail is concerned, in the "decorated" manner, but that manner has been so intensely perceived and assimilated as to become a natural, almost intuitive expression. His strong individuality shines through his adoptive fourteenth century as Wren's shone through his adoptive Palladian style.

As an example of the beauty of the detail of much of Mr. Bodley's work, the paneling of the new tower of Christ Church College, Oxford, may be presented. Decorative emphasis is given to the ancient portal below by the enriched paneling and triple niches, with statues of the founder, Cardinal Wolsey, and of two angels, which are placed above it.

Ecclesiastical Architecture.

BY REV. WILLIAM FREDERIC FABER.

IS THE BRICKBUILDER aware that it is a dangerous thing to invite these clerical opinions upon ecclesiastical architecture? A recent German writer* calls attention to "an abuse which has made itself distinctly felt in England in the last fifty years." This, he tells us, "is the disposition of the clergy to encroach upon the purely architectural, particularly the æsthetic and stylistic, side of the question. . . . These encroachments of the clergy upon the peculiarly architectural and artistic domain have proven themselves uncommonly hampering in England."

Are our own architects now voluntarily to open the door to this "clerical encroachment" here?

But, seriously, there is nothing to fear. If the clergyman be, in matters architectural, only a layman — which he appreciates — it may be added that it is quite American to invite lay opinion and co-operation, and to expect only good from it.

On this occasion particularly may we not assume a common ground with the architects? This series of papers, we take it, is evidence of the fact that some of the clergy are understood to have at heart, quite as deeply as any of themselves, the elevation of ecclesiastical architecture; and that some of the architects, as well as some of us, are willing to be understood to be, to put it mildly, not satisfied with the architecture we possess. We are not saying who is responsible for what they and we deplore: whether architects, for designing us churches of which few are good, many bad, many even atrocious; or whether building committees (with them clergymen), for being so depraved as to get out of their architects, not the best they could produce, but the worst. We simply state the fact: our American church architecture is deplorable.

It is chaotic. In our cities, conspicuously in those of greatest wealth and boasted culture, may be seen not simply churches to represent every known style; but worse, scarcely one church decently consistent with itself in that style which it affects. Concede, only for the sake of argument, the analogy that one man has as much right to talk French, another German, as the rest of us to talk English; what we ask then is, let each speak his own tongue correctly. Do not expect us to be pleased with German-English or with English-French! Is there such a thing as grammar? Can there be a literature of the illiterate?

We say again, that our churches, with rare exceptions, lack dignity and distinction. How many churches are there in any city that, considering what they purport to be, will bear comparison with the commercial, the domestic, the civic buildings erected and used by the same people? How many that compel the reverent at-

* Hermann Muthesius, *Die Neuere Kirchliche Baukunst in England*, Berlin, 1901. This, in spite of the author's pronounced anti-Anglican bias, is altogether the best account we know of, of the great English movement of the past century, and deserves translation.

tention of a passer-by, and by their witness of the Divine Majesty invite.

"that stoop of the soul which, in bending, upraises it too?"

How many churches that will bear repeated visiting and scrutiny and receive increasing homage as our capacity to appreciate noble art increases; or, if but humble and plain, command the tribute of respect we gladly pay to what is sincerely conceived and honestly executed?

And this brings us to the most vital point of all: the insincerity with which our architecture is cursed. How many churches do you know in which there is not something of sham and pretence, side by side perhaps with what is genuine and costly; something to forgive, when one would rather admire; something of which the mere thought is pain and grief to the true architect as to the minister of God? We refer not to that imperfection which may yet offer touching proof that men strove honestly to give their best; but to the melancholy evidences of that Ananias-like striving of men to appear to have given better than they really did. Such things are an outward and visible sign of an inward and spiritual disgrace.

Yet, architect and minister, one or both, have in almost every case had some hand in these futilities, these blunders, these atrocities; some share, if but by permission or concession and not by actual instigation or authorship. That reproach, though we personally may be measurably free from it, rests upon us both: upon the clerical order and upon the architectural profession. Let us then labor together to remove it!

There is but one way, and it is perfectly open to us. Education! The people must be taught. What architects and clergy will consent together to teach, the people will of necessity accept.

Education! But are we educated ourselves? I mean as to ecclesiastical architecture?

It is characteristic of our age to approach every subject by the methods of historical research and criticism; and science demands not merely the exploitation of this or that attractive province, not merely the accumulation of particulars, their minute description and classification, but the investigation of all accessible forms in every corner of the realm, their origin, their development, their determining heredity and environment, — in hackneyed phrase, their evolution. Will any one pretend that the architectural guides of the people know their ecclesiastical architecture in that way?

The first and absolutely indispensable step, then, is the study of the past, not that we may thereafter simply adopt and copy some chosen historic type, but that in some future better age we may be quite emancipated from mere copying and delivered alike from that fantastic crudeness on the one hand and that slavish timidity on the other which, like Scylla and Charybdis, await the uneducated who venture upon composition.

"But architecture is an art." Of course it is, but the history and principles of it form a science; this is our contention. With a mere fragmentary knowledge of that science it is as rash to undertake a great cathedral or church as it would be to attempt the composition of a symphony with the equipment of a fondness for music

and an understanding of the mandolin. We may build something big and with engineering skill make it hold together; but will it be the "frozen music" of the Old World?

Moreover, as an art, — nay, in its higher reaches as a science even, — he who would know church architecture must bring to it more than intellectual zest and technical grasp. Within that body dwells a spirit. It is characteristic that Mr. Holiday in his pioneer treatise on Stained Glass* and Mr. Cram in his excellent book on Church Building† both turn in the most natural way from scientific exposition to preaching Christianity, and appear unconscious of any digression. We may say that the "Symbolism" of old Durandus is trivial and foolish; but it is really far more foolish to expect a man who is devoid of the personal interest and devotion of the Christian and the churchman to teach or to design church architecture. Religious art surely cannot live and grow apart from religion.

But meanwhile we have churches to build and cannot wait for this long process of education. Very well; let us get, as best we can, at least a proper general idea for immediate use.

Why are we going to build this church? What purpose is it to serve? Manifestly the answer depends on who and what we are.

Are we Roman Catholics or Congregationalists? Or which of the scores of "denominations" is ours? After answering that, the next question may be, How much is it to cost? Where is it to be? But absolutely determining the essential things is this first question, and it ought to be.

Here are these "religious differences," whether we will or no; let us look at them fairly, without sentiment, without prejudice. Are they mere survivals of bygone controversies, lingering on because of the misplaced loyalty, perhaps pride, of their adherents, or do they stand for distinctions which are still vital, for positive convictions and principles, justified in going on till their work be fully done and they merge into some higher unity to which they shall contribute each its part? Let us get ourselves placed; let us understand ourselves.

Now, of course, no body of Christians will take that view of themselves which makes their very existence a state of sin; though a very few are beginning to think their separate mission accomplished, and are forming with others some larger groups — Christian reunion at least so far. The majority of the Christian bodies probably feel they still have a call to remain separate, but not forever.

What is all this to architecture? Everything; both for criticism of our past building, and for building hereafter. Truth is fundamental as to religion, so to art; and our ecclesiastical architecture must in straightforward fashion, without distortion and without disguise, express our faiths; to be honest, express even our differences, if we must have such. Religious differences, which are sufficiently vital to keep Christians in separate bodies, must be sufficiently vital and organic to put forth architectural forms fitted to express truthfully what each is.

* Henry Holiday, "Stained Glass as an Art," London, 1896.

† Ralph Adams Cram, "Church Building," Boston, 1901.

For example: I come upon what appears a great Gothic church. Its exterior suggests nave and aisles and transepts and choir with sanctuary and altar. I enter: within I find an amphitheater and sloping floor, and for focal center a speaker's platform and an organ. Is that truth-telling? Had the builders any distinctive religious ideals they felt bound to proclaim? Then why conceal them? If their supreme ordinance be preaching, why not build frankly an auditorium? The old altar-idea had vitality enough to build its cathedrals; if the new pulpit-idea has vitality enough, let it build, and as impressively as it can, what shall be its own.

We might glance at the other extreme. Signs are not wanting that the Roman Church is adopting, increasingly, Italian forms. The tendency is significant. It proves again how, when the principle has sufficient vitality, it will develop its visible type. We may repudiate the Roman idea, but we cannot easily mistake it.

Speaking as an Anglican, one may frankly confess that while our buildings tell—as they must—that we have a choir and an altar, and not a mere auditorium, yet the uncertain emphasis, the widely varying proportion, the haphazard arrangement, precisely express the state of mind of a church which has what many of her children do not understand and do not yet appreciate. Again: so long as some among us “choose” Norman and some Byzantine, while others shudder at “Debased Gothic” and think to fulfill all righteousness if only they build buttresses (though of wood), and make every window opening of a particular form of arch (though in shingles), and have transepts (in a village chapel), it is too evident that we need education, both as to what our church stands for and as to what are the first principles of ecclesiastical architecture.

Speaking still as an Anglican—inasmuch as the question is asked us—there is for an Episcopal Church at the present moment only one style. It is that which shall exhibit our Anglican heritage and our Anglican continuity. It is not a question of what we like,—for that matter, what is more beautiful, in rich, chaste, austere, religious beauty?—it is a question of telling the truth. Examples and inspiration are found in numberless mediæval and in many nineteenth-century English churches, at whose altars the Holy Eucharist is celebrated with the Book of Common Prayer, in whose chancels white-robed choristers sing our canticles and psalms and hymns. For seventy years the work has now gone on there, with errors and extravagances now and then, but in the main right and true; the Anglican Church has come to understand herself, her great lineage and her high calling. Her outward aspect, even in her churches, is increasingly conforming to her own type. “American?” No fear but it will be American enough; is not the Puritan English, too?

And to help our education, to solve the many questions arising between architects and clergymen, let us have an AMERICAN CHURCH BUILDING SOCIETY, bringing together architects, clergy and churchmen interested in these matters, building up an authoritative consensus of opinion, and establishing a higher standard of taste. Why not?

Notes on Standard Form of Specifications for Architectural Terra-Cotta.

BY CHARLES P. WARREN, A. M.

TUTOR IN ARCHITECTURAL CONSTRUCTION, COLUMBIA UNIVERSITY.

INTRODUCTION.

TWO kinds of terra-cotta are known in architecture: Ornamental or Architectural Terra-Cotta, which is used for the facing of buildings, or as a substitute for cut stone, and Structural Terra-Cotta, which is used for floors and partitions and for protecting steel frames of fireproof buildings. Contracts are always made with different contractors for the two kinds of terra-cotta, and in the following specification the Ornamental work has therefore been specified separately from the Structural work.

ARCHITECTURAL TERRA-COTTA.

As an ornamental material the use of terra-cotta is of great antiquity, being about contemporaneous with that of burnt bricks. It was frequently used in Italy during the early Renaissance, but after that it was not employed to any great extent until about the year 1870. Since then it has largely superseded the use of cut stone, both in Europe and in this country, especially for the fronts of fireproof buildings.

Much confusion has prevailed in the specifications for terra-cotta work, owing to the circumstance that four separate trades, the Terra-Cotta Makers, the Masons, the Carpenters and the Iron Workers, are involved and that the services of these four trades are not distinctly or consistently separated from one another. For example, almost all specifications state that “the Terra-Cotta Contractor shall furnish all the terra-cotta shown on the drawings,” etc., that “he shall provide his own scaffolds, centers,” etc., that “he shall furnish all anchors necessary to tie the terra-cotta to the masonry or ironwork,” etc., that “the mortar for the terra-cotta shall be as specified for brickwork,” etc.

Notwithstanding these requirements of the specification, what really happens in the majority of cases is this. The Terra-Cotta Contractor merely furnishes the terra-cotta at the building or f. o. b. cars; the Mason sets it in place and provides some of the anchors; the Iron Contractor supplies other anchors and sets all the brackets and anchors bolted or riveted to the structural work; and the Carpenter provides the centers and boxes and protects the work when set in place.

The failure to recognize this in the specification, and the requiring of one trade to do the work distinctly within the province of another, have led to no end of confusion and disputes and in some cases even to strikes. Much of this may be avoided if the specification strictly defines the limits of each trade and requires it to do nothing outside of its own particular field. The following specification has been drawn up with this in view. It is offered as a suggestion to those who have experienced difficulty in having terra-cotta contracts executed without disputes and misunderstandings.

CONTRACTOR TO SUPPLY TERRA-COTTA

The specification should require the Terra-Cotta Contractor merely to furnish the material free of charge at the building (or f. o. b. cars in the case of out of town contracts) ready to be set in place and in sufficient quantities to keep pace with the progress of the work. All work to be executed in terra-cotta should either be marked on the drawings or colored on the elevations. Because of the necessity of making terra-cotta in smaller pieces than cut stone, considerable anchoring and furring is necessary. Therefore when used in connection with structural steel work, the Terra-Cotta Contractor should carefully examine the structural drawings and make suitable provision in his work to enable it to be properly set. The pieces are all carefully packed at the shops and those with projections, such as capitals, which are liable to injury, are boxed and protected as well. This protection should not be removed until the pieces are ready to be set in place. It is not advisable, however, to specify the exact amount of packing necessary. That should be left to the judgment of the Terra-Cotta Contractor as he is required to deliver the material in perfect condition at the building.

TO THE MASON.

A point not always clearly defined is the responsibility for the condition of the terra-cotta after its delivery at the building. The Terra-Cotta Contractor, under the usual form of specification, is at the mercy of the Mason, so far as the care of his material is concerned, and no matter how much of it may be broken or damaged by careless handling he is, under ordinary circumstances, bound to replace it, although it has passed out of his hands. It seems no more than fair that the Terra-Cotta Contractor's responsibility for the sound condition of his material should cease at its delivery at the building, as from that time until set in the wall it is in the hands of the Mason. It has accordingly so been specified, and the Mason is required to replace at his own expense any material that is injured. The Mason unloads the pieces from the trucks as they are delivered at the building or from the cars, and it is thus made his interest as well as his duty to store them in a safe place, in a careful manner and according to the order in which the pieces are to be used, so that it shall be unnecessary to handle them frequently during the process of setting, and to take every precaution to prevent chipping and breaking in handling from the time the material is delivered until it is set in position. Few mechanics, apparently, realize that terra-cotta is as fragile as stone and that it requires equally careful handling. Should any of the pieces have been damaged during transportation, however, then the Mason is required to notify the Terra-Cotta Contractor of the numbers of such pieces immediately upon the arrival of the material at the building. When the contract is large enough to warrant it, the Terra-Cotta Contractor is sometimes required to send a competent man, familiar with handling terra-cotta, to superintend the unloading and sorting of the pieces and to see they are correctly set in place.

IRON CONTRACTOR TO SUPPLY AND SET IRON.

Some specifications state that the Iron Contractor shall furnish all the iron required for setting the terra-cotta,

others that the Terra-Cotta or Mason Contractor, whichever sets the terra-cotta, shall supply it. The Iron Contractor always furnishes and sets all iron or steel work which is fastened or connected to the structural work or frame of the building. In Plate I, for example, he would probably provide and set the 12-inch I bracketed out from the columns, the angle iron lookouts supported by it and riveted to the roof I beam and also provide the two horizontal angle irons on the legs of the lookout angles; but he would not set these angles unless they were bolted or fastened to the lookouts. But the Mason Contractor should furnish and set the rods between these angles which hold up the modillions and ornaments and the hook anchors which tie the blocks to the I beams, and in this specification he is required to do so. All this work is not a part of the structural work. It is required for supporting the terra-cotta, and a contract with an Iron Contractor requiring him only "to provide and set all structural work required" could not be construed to include it. On the other hand, the Terra-Cotta Contractor or Mason might not be allowed according to the Trades Union rules to set ironwork bolted or fastened to structural work. Therefore the specification should clearly require the Iron Contractor to provide what additional ironwork is needed to safely secure the terra-cotta. How much this will amount to is one of the most troublesome questions to decide in a terra-cotta specification. In the ordinary course of events the iron estimates are obtained long before the terra-cotta details are made, so the Iron Contractor is sometimes at a loss to know just what and how much iron will be required, and may refuse to include it in his estimate; but it is for the Architect, in consultation with the Terra-Cotta Contractor, to take all the trouble necessary to inform him unless it is strictly defined. It is this that has led to the reprehensible custom of requiring the Terra-Cotta Contractor to provide and set the iron.

MASON TO SUPPLY AND SET IRON

All ironwork which is not bolted or riveted to the structural work should be set by the Mason, who should also provide and set all ashlar and wall anchors, dowels, clamps, etc., just as he does for anchoring stonework. The anchors or rods used for fastening the terra-cotta should be wrought iron painted or galvanized to protect them from rust, or where the pieces to be fastened are small and light, copper wire may be used for anchoring them. The number of anchors required for each piece should be specified.

AND TERRA-COTTA.

The Mason also sets the terra-cotta, provides all mortar, hoisting apparatus and power and erects all necessary scaffolding.

CARPENTER TO PROVIDE AND SET ARCHES AND CENTERS AND PROTECT WORK.

The Carpenter should provide and set all arches and centers required and also protect as soon as set all projecting courses, such as cornices, belt courses, etc., all bases, capitals, jambs and other work liable to be injured. He should also keep all boxing in repair until the work is finished and ready to be cleaned down. The boxing must be of pine or spruce. Hemlock is unsuited for this purpose as it is liable to stain the terra-cotta.

MATERIAL AND WORKMANSHIP.

Other causes for the confusion which sometimes appears in terra-cotta specifications are that the tests for the material itself, unlike those for iron, steel and cement, have never been reduced to a standard and that the method of manufacture is not generally understood by specification writers, who, ignorant of technical details, sometimes call for impossible conditions and requirements. For these reasons, therefore, it has been thought advisable here to describe in a brief and general way the method of manufacture.

a. Advantages. Aside from its economical advantages the great value of terra-cotta as a building material lies in its durability. When made of the right material and properly burnt it is practically impervious to moisture, and hence is not subject to the disintegrating action of frost, which is such a powerful agent in the destruction of stone, neither does it afford a lodgment for vegetable growths as is the case with many stones. The ordinary acid gases contained in the atmosphere of cities have no effect upon it, and the dust which gathers on the moldings is usually washed away at every rainfall. The greatest advantage, however, possessed by terra-cotta is its resistance to heat, which makes it the most durable material known for the trimmings and ornamental work in the walls of fireproof buildings. Although terra-cotta has been used in this country but for a comparatively short time, it has thus far proved very satisfactory, being, in common with the better varieties of bricks, the most durable of all building materials. In Europe there are numerous examples of architectural terra-cotta which have been exposed to the weather for three or four centuries and which are still in good condition, while stonework subjected to the same conditions is more or less decayed. Terra-cotta is also much lighter than stonework, weighing from sixty-five to eighty-five pounds per cubic foot.

b. Manufacture. Terra-cotta is composed of practically the same material as bricks, and its characteristics, so far as the material itself is concerned, are the same. It requires, however, for its successful production a much better quality of clay than is generally used for bricks, while the process of manufacture is entirely different.

The first consideration in the manufacture of terra-cotta is the selection of the material. No one locality gives all of the clay required for first-class material, and each shade and tint of terra-cotta requires the mingling of certain clays from different localities.

A great variety of excellent clays are mined in New Jersey and in other near-by locations and also in the West, large quantities being used annually for making terra-cotta, fire bricks, pottery, tiles, etc. They are in a sufficient variety to give in themselves almost any color effect desired, from light cream to dark red. After being mined from the bank the clay is seasoned by exposure to air, then dried, sometimes by artificial heat, and finely ground. When this has been accomplished what is called "grog" or "grit" is added to the clay to cause a partial vitrification of the mass during burning and also to prevent by its presence the excessive shrinkage of unbaked clay. The grog or grit consists of fragments of old ornamental terra-cotta, old pottery and fire bricks broken in small pieces; this mixture is then taken to a crusher

where it is thoroughly crushed and ground. A suitable proportion of ground clay and grog is now mixed, and the mass is then tempered in a pug mill or between rollers. After passing through this process it is thoroughly mixed and has the consistency of putty; it is plastic and easy to work. This plastic mass is then formed into small cakes, of seventy-five or one hundred pounds, for convenience in handling, and sent to the pressing rooms.

If several pieces of terra-cotta of the same size and shape are required, a shrinkage model at the scale of about thirteen inches to twelve inches of plaster and clay is first made; the background of the model being of plaster and the ornament of clay, and from this a plaster mold is taken. When the plaster molds are hard and dry the plastic clay is pressed into them by hand and allowed to remain for a few hours, until it has acquired sufficient stability to be relieved from the mold, one mold lasting for about fifty impressions. Sometimes, in very particular work, the modeler may be called upon to retouch some of the pieces after having been relieved from the mold.

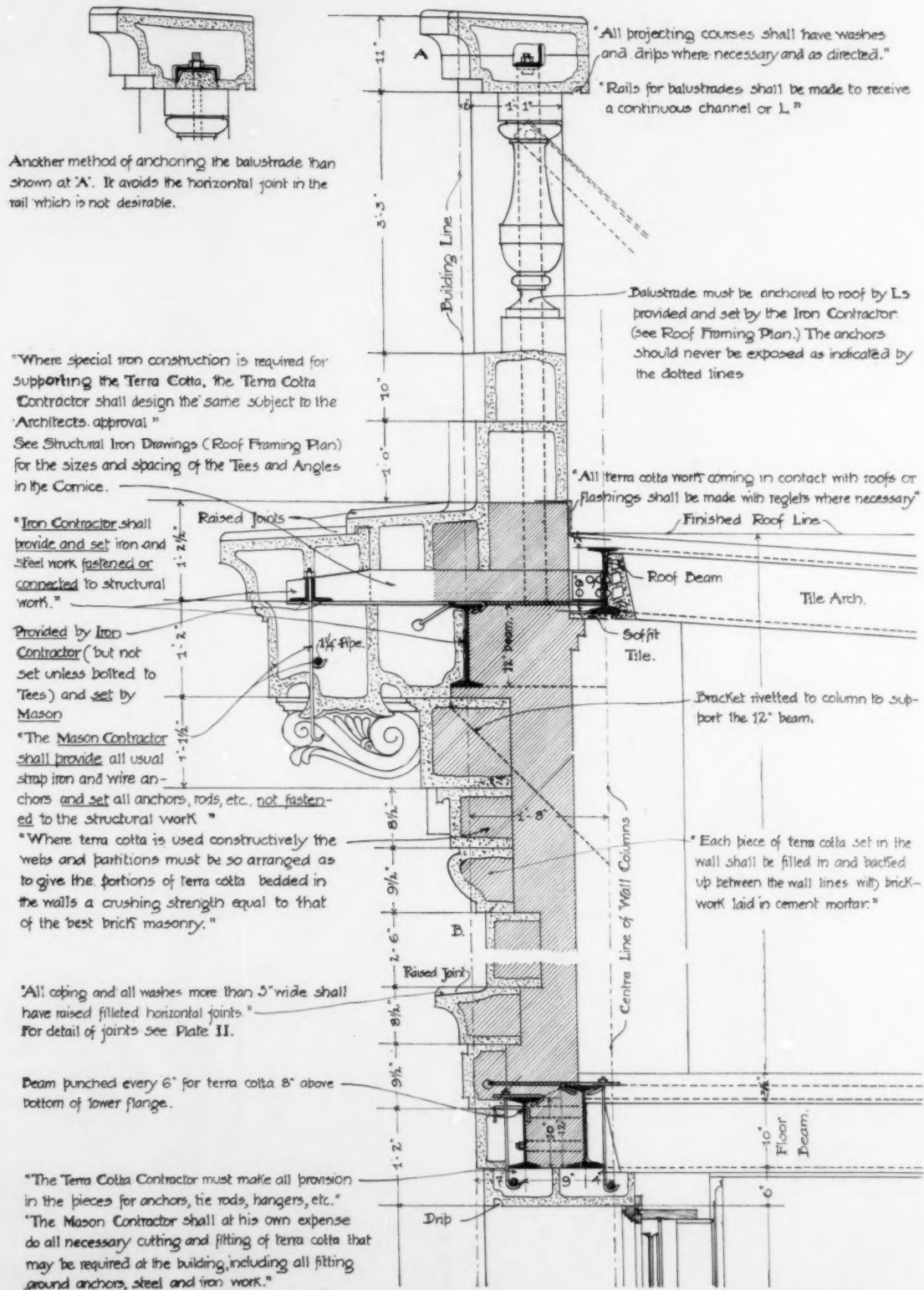
The unburnt terra-cotta is next dried to evaporate the moisture it contains, then sprayed with a properly prepared coating of clay and chemicals to give the color and texture of the surface required, and finally put into the kilns where it remains for about ten days, baking and cooling before it is ready for use. Properly speaking the terra-cotta is baked and not burnt, as it is never exposed to fire, but to heat radiated from brick ovens, just as bread is baked. Therefore it is strictly incorrect to speak of "hard burnt" terra-cotta, but as the usage of this term is universal it seems unwise to change it in the specification. During the baking, which is carried on at a white heat, (a temperature of from 2,000 degrees to 2,300 degrees Fahrenheit,) the metallic oxides and silicates produce a partial vitrification on the exterior of the terra-cotta. This harder skin or coating, which adds so much to the durability of the material, should remain intact and under no circumstances be chipped, chiseled or broken, although the joints may sometimes require chiseling or trimming in order to insure a close fit.

If only a single piece of terra-cotta is to be made, or where no repetition is intended, a mold may not be necessary, the clay being modeled directly into the required shape. The finished product thus bears the direct impress of the modeling artist. It can be studied, improved or modified, and, when entirely satisfactory, baked. On this account terra-cotta possesses, for highly decorative work, an advantage over all other building materials.

c. Inspection and tests. A sharp, metallic, bell-like ring and a clean, close fracture are characteristics of a homogeneous, compact and strong terra-cotta. No spalled, chipped, flashed or warped pieces should be accepted. The terra-cotta should be slightly glazed or vitrified on the surface, which should be so hard as to resist scratching with the point of a knife, and all moldings should come together perfectly at the joints. Terra-cotta is subject to unequal shrinkage in baking, which sometimes causes the pieces to become twisted. When this is the case great care must be taken in laying the

ARCHITECTURAL TERRA COTTA.

Details of Cornice and Balustrade.



Scale, One inch equals one foot.

CRW. 1904.

ARCHITECTURAL TERRA COTTA.

Details of Window Sills, Joints, etc.



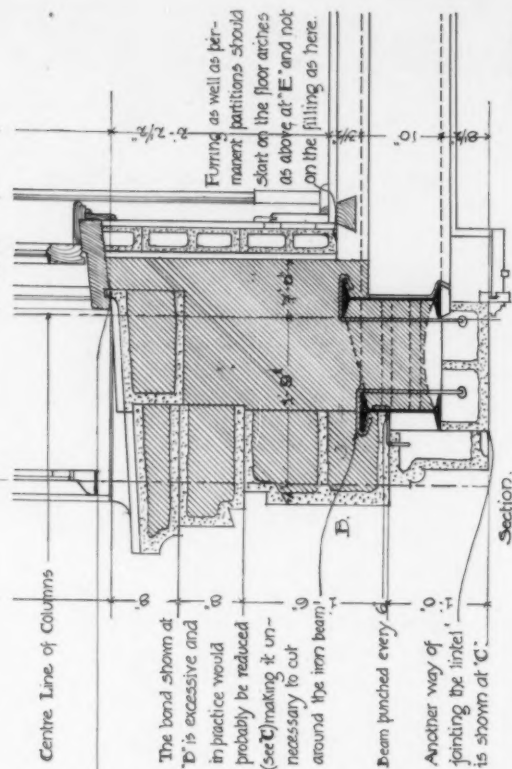
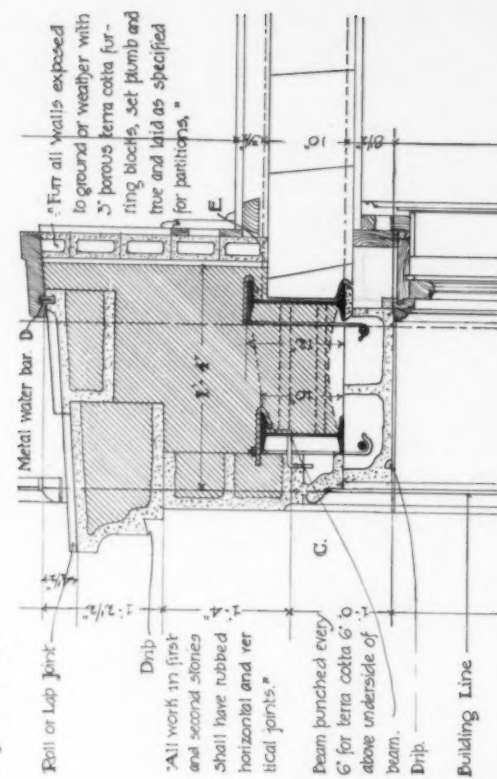
"The Terra Cotta Contractor shall carefully investigate the sizes and manner of jointing the terra cotta and consult with the Architects in regard to producing the best results" (Window sills and lintels are generally made in pieces from 18" to 2'-0" long. Jamb blocks are usually 1'-6" high or thereabout and should be designed to bond in with the brick work. Plain ashlar blocks should not exceed 2'-0" x 1'-0" in size for a 4" bond.)

"All sills shall have raised filleted horizontal joints with a raised fillet across the ends to be let into a groove on the underside of the wooden sill." A metal water bar shown at "D" is sometimes used.

"The horizontal joints in all sills and projecting courses shall be raked out 2" deep, caulked with 1" of oakum and then filled in with (jointers putty.)"

"All joints throughout, except in enamelled work, shall be well filled and as near 1/4" thick as possible, 3/8" being the maximum thickness allowed, enamelled joints shall be as near 1/8" thick as possible, with a maximum thickness of 1/4"."

Elevation showing manner of jointing.
Scale. One inch to the foot.



C.P.W. #964

blocks, otherwise the long, horizontal lines of a building such as those of string courses or cornices, which are intended to be straight, are apt to be uneven, and the faces of blocks of plain flat ashlar are often "in wind," as it is called. This shrinkage amounts to almost an inch to the foot from the time the terra-cotta is molded until it is baked, and although proper allowance is made for it in molding, yet it is sometimes subject to slight variations. Twisted and warped blocks are sometimes set true by chiseling, but this, as before mentioned, should not be permitted, for if the vitreous surface be removed the material in some cases may not be able to withstand the attacks of the atmosphere so well.

The specification states that "a sufficient number of over pieces must be provided to guard against delay from faulty material." There is no rule for determining the number, which must be left to the discretion of the manufacturer.

COLOR AND FINISH.

The color of terra-cotta ranges from white to a deep red, according to the chemical constituents of the clays used. Within the past fifteen years a great impetus has been given to the production of special colors. In 1885 fully four-fifths of the terra-cotta produced in the United States was red; now hardly one-fifth is of that color, white, buff and gray being the prevailing colors. These colors are natural to the clay. Others, green, brown, blue, etc., are obtained just as in enameled brickwork by spraying the clay with a thin coating or slip composed of clay and chemicals. An irregular greenish color, however, may sometimes be due to absorption of moisture, an indication of a porous surface, or more probably to under-baking, as alkali salts present in the clay and not thoroughly consumed come out that color.

Formerly, when red terra-cotta only was used, no slip was applied, the color being the natural one of clay. Hence it was the custom to specify that "all terra-cotta shall be uniform in color throughout the entire block." Although this is still a requirement of some specifications, it can no longer be insisted upon. Almost all terra-cotta is now colored by spraying a body with a finer slip of clay and chemicals colored as desired. Three body colors only are used, red, buff and gray, the surface color being applied to them, so now it is only in rare cases that the color is "uniform throughout the entire block."

The terms "vitreous," "dull finish," "matte finish," "glazed," "semi-glazed" and "enameled" are used to designate the different surface finishes of terra-cotta, and they are all sometimes incorrectly applied. As a matter of fact there are but two surfaces; one has a dull, vitreous finish, also called "standard finish" by the manufacturers, produced by the fluxing of metallic oxides and slip upon the surface of the body terra-cotta, and the other has a bright porcelain-like, glazed or enameled finish, usually formed by a coating of slip covered with another of glaze. Glazed surfaces are sometimes given a dull glaze. This can be produced as a natural consequence of the process of manufacture, when it is known as a "matte finish," or it may be produced artificially by sand blasting a highly glazed surface. There is no such finish as "semi-glazed" now made by terra-cotta manufacturers.

The most durable surface, perhaps, is the first one, produced by fluxing oxides and slip upon the clay body.

But in any case, for the sake of durability, the finish should cover all exposed surfaces perfectly and should be absolutely non-absorbent, so that it may be cleaned down with sponge and water. Highly glazed work, if it has not been sand blasted, is generally tested with red ink to prove its non-absorbent qualities, and an exposure test is sometimes called for to determine whether the glaze crazes or pits. There are few glazes, however, that may not craze slightly if exposed. All surfaces of the body terra-cotta, except ornaments and background of same, are generally given a vertical drove, smooth rubbed, fine pointed or other finish in imitation of stone masonry.

DETAILS AND DRAWINGS.

In this as in all other building contracts a list of drawings furnished for estimating should be given the Contractor to avoid any misunderstanding. The Architect generally makes three-quarter-inch scale details and also full sizes of all terra-cotta work, but on account of the shrinkage in baking, which, as before mentioned, amounts to about one inch to the foot, the full sizes must all be redrawn larger by the Contractor at the works to allow for this, so that the finished product will be the required size. It is an excellent practice, and one which obtains in many offices, for the Architect to procure from the Terra-Cotta Contractor a shrinkage rule for making the details, in order to avoid redrawing and the consequent chance of error.

MODELED WORK.

Just as in carved stonework, plaster models are made of all ornamental terra-cotta work, not only to get the relief, etc., which cannot be shown so easily on the full size details, but also, as has been said, for the purpose of making a mold from the model for the pressing of the actual pieces. These models are made by the Terra-Cotta Contractor at his own works at the shrinkage scale. It is frequently specified, as it has been in this specification, that the models must be inspected and approved by the Architect before any of the terra-cotta is baked. Where the factory is at some distance, however, considerable delay and inconvenience might result if the specification should require the Architect to personally inspect and approve the models before beginning work. In such cases, therefore, the alternative given in the specification of submitting photographs of modeled work for approval is much more convenient for all concerned.

SIZES.

Terra-cotta, whether plain or ornamental, is always made of hollow blocks formed with webs inside so as to give extra strength and keep it true while drying. Although terra-cotta can be made solid, making it hollow requires less raw material, the pieces dry quicker, can be burned quicker and, of course, are less expensive. Then the weight of hollow terra-cotta, which is much less per cubic foot, also effects a saving in freight, cartage and cost of handling at the building. The hollow blocks are generally made from 18 inches to 2 feet long, from 6 to 12 inches deep and of a height determined by the character of the work, although pieces have been made from 6 to 8 cubic feet in volume and weighing one-quarter of a ton. The outer shell is made $1\frac{1}{2}$ inches thick and the webs and partitions about 1 inch thick. The parti-

tions should have numerous holes in them for convenience in handling and to afford a clinch for the mortar and brickwork used for the filling and backing, and they should be so arranged that the open spaces shall not exceed 6 inches. In fact, all the work should be divided into as short lengths as practicable. Short lengths are more easily handled and are less liable to break and warp than long ones, although, contrary to the general belief, small pieces are more expensive to manufacture than large pieces, and the Terra-Cotta Manufacturer, in laying out the sizes, only endeavors to keep the Architect within bounds. Usually when the Terra-Cotta Manufacturer advises a reduction in the size of a piece the Architect will be wise to accede to his request. As a rule it is impracticable to span an opening of any considerable length in one block, and even window sills are generally made in pieces about 18 inches or 2 feet long. Jamb blocks are usually 1 foot 6 inches in height or thereabout. Mullions, transoms and tracery should be made in as many pieces as the design will admit, and if there are several members in the reveal moldings they should be divided, care being taken that the joints are well broken or bonded in elevation. String courses and cornices should be divided into as short lengths (2 to 3 feet) as convenient. Plain ashlar, in which the warping is more evident than in molded surfaces, should not exceed 12 by 24 inches in size where it has a depth or bond in the wall of only 4 inches, although it can be made larger for a 6 and 8 inch bond.

All terra-cotta work, therefore, should be laid out with these limitations in view, and a careful study of the sizes of the blocks and the position of the joints should be made on the $\frac{3}{4}$ -inch scale drawings. Two ways of providing for this are specified. The first is to require the Contractor to investigate the sizes and manner of jointing and to consult with the Architect in regard to producing the best results, which, owing to the special nature of the material, he is better fitted to do. The second is for the Architect to show the position of all the joints and the sizes of all the pieces, the work being so designed as to form part of the construction and to adapt itself as far as possible to being divided into pieces of moderate size. When used for trimmings in connection with brickwork it is necessary that the pieces shall be of the exact height to bond in with the courses of bricks, and a small section of brickwork should be built up to get the exact heights, before the final drawings for the terra-cotta are sent to the manufacturer. The depth of the bond should always be specified by the Architect, care being taken not to make it excessive. Where it is not specified, Terra-Cotta Contractors figure on 4 inches for flat work without any projections. As noted on Plate II, the bond for some of the pieces is excessive. Although this may be shown on the Architect's drawings, in the actual working out of the pieces just as good results would be obtained by reducing the bond to 4 inches, thus doing away with cutting around the ironwork, and in some cases with the necessity for anchors.

CONSTRUCTIVE TERRA-COTTA.

When terra-cotta is used constructively, that is, when it is bedded into and forms part of the wall, it should have a strength at least equal to that of the best brick masonry. The safe working strength of ordinary hollow blocks is

five tons per square foot, but by a careful arrangement of the webs and partitions and by filling them solid with concrete or brickwork the crushing strength may be increased to ten tons per square foot.

DRIPS, JOINTS, ETC.

It was formerly the custom to specify that window sills, copings and other horizontal courses should have "roll or lap joints," as they were called, in which the joint was protected by a $\frac{1}{2}$ round mold raised above the surface, as shown in Figure A, Plate II. Terra-Cotta Contractors objected to this because of the difficulty of making the roll, of its liability to become broken off or chipped in handling, and also because it precluded the possibility of rubbing the terra-cotta on the rubbing bed and recommended instead a raised filleted joint, shown in Figure B, which has now superseded it. The pieces should terminate under the wooden sill rather than against the edge, and a raised fillet across the end let into a groove on the underside of the sill, as shown, prevents water from penetrating the wall during driving rains.

Where buildings are trimmed with terra-cotta the cornice is generally made of the same material, as it is much lighter and cheaper than stone, especially if elaborately decorated, besides permitting of lighter walls. With stone cornices it is necessary that the various pieces be of sufficient depth to balance on the wall. With terra-cotta cornices, however, this is not necessary or customary, the various pieces being made to build into the wall only 8 or 12 inches and to be supported by ironwork.

Generally small steel L's and T's, as shown in Plate I, are used for supporting the projecting members, and where the projection is so great as to overbalance the weight of the masonry on the built-in end, allowing for the weight of snow on the projection, the inner ends of the supports are anchored by rods carried down into the wall until the weight of the masonry above the anchor is ample to counteract the leverage of the projection. Therefore, wherever iron is used for tying the cornice to the walls it is necessary to determine the method of anchoring before the pieces are molded, as in manufacturing them holes or slots must be made for inserting the beams, rods and anchors.

CUTTING AND FITTING.

Before any of the terra-cotta pieces are shipped from the factory they are carefully fitted together by the Contractor and numbered to the numbers on the "setting plan," which is sent to the Mason to enable him to properly set the work. Vertical joints are rubbed down on a rubbing bed in order to straighten out inequalities and make a neater finish. Other cutting and fitting is necessary at the building, as, for example, for the fitting of the terra-cotta work around the ironwork and frame, but this should be done by the Mason as he handles and sets the work. It might be argued that he would be unable to estimate how much of an item this might be, but every specification for the erection of a building at present requires the Mason to do all cutting and patching for all other contractors, and it is no more difficult to estimate for the terra-cotta work than for theirs.

SETTING, MORTAR, JOINTS, BACKING, ETC.

Terra-cotta should always be set in either natural or

Portland cement mixed with sand in about the proportion of one to two. The method of setting the terra-cotta is similar to that of stone setting and is done by the Mason. As soon as set the outside joints should be raked out to a depth of $\frac{3}{4}$ inch to allow for pointing and to prevent chipping. The terra-cotta should be built up in advance of the backing, one course at a time, and all the voids in blocks set in the wall should be filled between the wall lines with mortar, into which bricks should be forced to make the work as solid as possible. All blocks not solidly built into the walls should be anchored with galvanized iron clamps the same as used for stonework, and as a rule all projecting members over 6 inches in height should be anchored in this way. After the walls are up the joints should be pointed with Portland cement colored with a mineral pigment to correspond with the color of the terra-cotta. The pointing is done in the same way as for stone, except that the horizontal joints in all sills and the washes of belt courses and cornices should be raked out about 2 inches deep and calked with oakum for about 1 inch and then filled with an elastic cement. The joints in terra-cotta are about the same thickness as those in good stone ashlar, $\frac{1}{4}$ inch, with a maximum thickness of $\frac{3}{8}$ inch. In enameled work finer joints $\frac{1}{8}$ inch thick are used, with a maximum thickness of $\frac{1}{4}$ inch.

COST.

A single piece of terra-cotta or a plain cap or sill costs about the same as sandstone or limestone when the rough stone can be delivered at a price not exceeding 90 cents per cubic foot. When, however, a number of pieces exactly alike are required, they can be produced in terra-cotta cheaper than in stone, unless the terra-cotta has to be transported at a large cost for freight. The advantage in point of cost in favor of terra-cotta is greatly increased if there be a large proportion of molded work, and especially if the moldings are enriched, or if there are a number of ornamental panels, carved capitals, etc. The use of terra-cotta for trimmings and especially for heavy cornices in place of stone often reduces the cost of walls and foundations, as the weight of terra-cotta will be much less than that of stone, and the walls and foundations may be made lighter in consequence.

TIME REQUIRED.

Finally, contracts for terra-cotta and the drawings should be made at least six weeks before the material will be used because of the time required to make it. Architects should bear this in mind when laying out their work. If they delay making their drawings they cannot expedite matters by hurrying the Terra-Cotta Contractor and urging him to turn out his work in four weeks or less. Six weeks is the shortest reasonable time in which it can be done.

Standard Form of Specification for Architectural Terra-Cotta.

Expressions in italics may be changed. Expressions in parentheses () may be omitted and those in brackets [] substituted instead, preference generally being given to the first.

All sizes and dimensions are approximate and not absolute.

If made a sub-contract insert suitable general clauses.

CONTRACTOR TO SUPPLY TERRA-COTTA

The Terra-Cotta Contractor shall furnish and deliver free of charge (at the building) or [f. o. b. cars], as fast as required but without encumbering or interfering with the work of other contractors, all the terra-cotta (shown on the drawings) [colored pink on the elevations] or (hereinafter specified;) [the terra-cotta is used in connection with the structural steel work, and a careful study of the structural steel drawings should be made by the Terra-Cotta Contractor, as he must supply any additional labor or materials, other than shown on the drawings, necessary to properly construct the terra-cotta.]

All pieces are to be carefully packed in hay or straw for transportation, and those with projecting parts, liable to injury, such as caps, bases, etc., are to be thoroughly protected by boxing or crating, which protection shall not be removed until the pieces are ready to be set in place.

TO THE MASON.

The Mason Contractor must unload the terra-cotta (at the building) or [from the cars] and store the same in a safe place and in accordance with the setting plans, to avoid a frequent handling of the pieces; should any pieces have been damaged in transportation he shall notify the Terra-Cotta Contractor immediately upon the arrival of the material. He shall also take every precaution to prevent chipping and breaking from handling, from the time the material is delivered until it is set in place, and shall replace at his own expense any material so injured.

[Where contract is large enough to warrant it.] The Terra-Cotta Contractor shall at his own expense send a competent man to the building to superintend the unloading and sorting of the terra-cotta and to see it is correctly set in place.

IRON CONTRACTOR TO SUPPLY AND SET IRON.

The Iron Contractor shall furnish all iron and steel work necessary to support the terra-cotta and to tie the same properly to the steel and iron frame of the building, except the usual strap iron and wire anchors which are to be provided and set by the Mason.

The Iron Contractor shall also set all iron and steel work fastened or connected to the structural work.

Where special iron construction is required for supporting the terra-cotta, the Terra-Cotta Contractor shall design the same, subject to the Architects' approval.

MASON CONTRACTOR TO SUPPLY AND SET IRON

The Mason Contractor shall furnish all usual strap iron and wire anchors, rods, bolts and hook bolts required to properly support and tie the terra-cotta to the masonry and to the steel frame, and he shall also set all anchors, rods, bolts, etc., not fas-

THE BRICKBUILDER.

tened to the structural work; the anchors shall be of (galvanized wrought iron) [wrought iron coated with asphaltum put on hot] or (proper size copper wire).

AND TERRA-COTTA.

He must also set all terra-cotta work and provide all mortar, all hoisting apparatus and power, and erect all scaffolding to properly set the same.

CARPENTER TO PROVIDE AND SET ARCHES AND CENTERS AND PROTECT WORK.

The Carpenter shall provide all arches and centers required and set, ease and strike same.

He must also protect with pine or spruce boards (not hemlock), as soon as set, all projecting courses and cornices, all bases, capitals, jambs and other work liable to injury and keep the same covered until the front is cleaned down.

MATERIAL AND WORKMANSHIP.

The material for all terra-cotta must be carefully selected clay, hard burnt and free from all imperfections of any kind; it must give a sharp, metallic, bell-like ring when struck, show a uniform fracture and be so hard as to resist scratching with the point of a knife.

All blocks must be straight and true, out of wind and be provided with necessary webs and ribs; where continuous molds are used they must be of uniform size and come together closely at the joints, and ashlar and other flat pieces must be straight and show no wavy surfaces or lines when set.

No warped, swollen or twisted, under or over burnt, spalled, chipped, cracked, discolored or painted pieces will be accepted.

A sufficient number of over pieces must be provided to guard against delay from faulty material.

COLOR AND FINISH.

All terra-cotta, except in . . . where it is to be enameled or glazed, is to have a vitreous surface of a uniform buff color corresponding to sample in Architects' office, and all surfaces except ornaments and background of same shall have a (*vertical dove finish*.)

Enameled or glazed terra-cotta shall be of a uniform (*ivory white*) shade and shall have a smooth surface with a (bright finish) [dull finish, free from any gloss whatever produced by sand blasting the glazed surface particularly prepared for this purpose] (matte finish, free from any gloss whatever,) like sample in Architects' office; the enamel or glaze must cover all exposed surfaces perfectly, be absolutely non-absorbent, and maintain its surface and color without crazing or popping when exposed to the weather.

DETAILS AND DRAWINGS.

The Architects will furnish (full size) [large scale] or (shrinkage scale) details for all terra-cotta work, which must be executed in strict conformity to them.

The following is a list of drawings furnished for estimating: . . .

The Terra-Cotta Contractor shall furnish working drawings for all terra-cotta work, showing all details, joints, etc., and also for all ironwork, *i. e.*, anchors,

brackets, rods, etc., which must be approved by the Architects in writing before any of the terra-cotta work is begun; he shall also keep at the building setting drawings for the use of the Mason setting the work.

MODELED WORK.

This Contractor shall also furnish models for all ornamental work and shall employ for this purpose the very best modelers and sculptors. (Photographs of all modeled work shall be submitted for approval) [All modeled work will be inspected by the Architects before burning] and no work shall be burnt until such (approval) [inspection] shall have been obtained by the Contractor.

All moldings will be profiled so as to draw from the molds and those in . . . are to be undercut after pressing.

SIZES.

(The Terra-Cotta Contractor shall carefully investigate the sizes and manner of jointing the terra-cotta and consult with the Architects in regard to producing the best results.) or [Each piece of terra-cotta shall be of the size shown on the drawings, unless otherwise detailed by the Architects, and all joints also must be as indicated on the drawings: should it become necessary to change them the Contractor shall notify the Architects and obtain their written approval before making the change.]

Unless otherwise shown the bond for all terra-cotta shall be 4 inches.

CONSTRUCTIVE TERRA-COTTA.

Where terra-cotta is used constructively the webs and partitions must be so arranged as to give the portions of terra-cotta bedded in walls a crushing strength equal to that of the best brick masonry; the Terra-Cotta Contractor will be held responsible by the Architects for the structural capacity of all such work.

WASHES AND DRIPS.

Projecting courses shall have washes and drips where necessary and as directed by the Architects.

JOINTS.

All sills and copings, and all washes more than 3 inches wide, shall have (raised filleted) horizontal joints, and the sills shall have a raised fillet across the end to be let into a groove on the under side of the wooden sill.

COPINGS.

All copings, except ordinary vitrified salt glazed tile coping, shall be provided by the Terra-Cotta Contractor, which shall be made with reglets for counterflashing, as (shown on the drawings and details) [directed] wherever they come within 8 inches of the roof.

REGLETS.

All other terra-cotta work coming in contact with roofs or flashings shall also be made with reglets to receive the same.

SOFFITS.

All soffits are to be made plain except . . .

DOWN SPOUTS.

Cut all openings for down spouts or conductors, allowing $\frac{1}{2}$ inch all around for expansion.

GUTTERS.

The cross section of all gutter moldings is to be uniform, the pitch for the metal gutter being formed by furring or cementing.

BALUSTRADE.

Rails for balustrade shall be made to receive a continuous channel or L iron.

RUBBED WORK.

All work in first and second stories shall have rubbed horizontal and vertical joints rubbed down on a rubbing bed at the factory.

CUTTING AND FITTING.

The Terra-Cotta Contractor shall carefully fit all terra-cotta work together at his factory and correctly number the same for setting to correspond with setting plans, which he shall furnish.

He shall also make all provision in the pieces for anchors, tie rods, hangers, etc., hereinafter specified or shown on the working drawings approved by the Architects.

The Mason Contractor, however, shall at his own expense do all necessary cutting and fitting of terra-cotta that may be required at the building, including all fitting around anchors, steel and iron work, etc.

SETTING.

All terra-cotta work shall be set true to a line and closely fitted.

MORTAR.

The mortar is to be as specified for brickwork.

THICKNESS OF JOINTS.

All joints throughout, except in enameled work, shall be well filled and as near $\frac{1}{4}$ inch thick as possible, $\frac{3}{8}$ inch being the maximum thickness allowed: enameled joints shall be as near $\frac{1}{8}$ inch thick as possible, with a maximum of $\frac{1}{4}$ inch.

All pointing shall be done (*with the same mortar*) as the work progresses, except (*the enameled ashlar joints*) where *colored mortar* shall be used, in order to make the joints as inconspicuous as possible: the horizontal joints in all sills and projecting courses shall be raked out 2 inches deep, calked with 1 inch of oakum and then filled in with (*an elastic cement*).

BACKING. (Plate I.)

Each piece of terra-cotta set in the wall shall be filled in and backed up between the wall lines with brickwork laid in cement mortar (*as specified for brickwork*).

CLEANING DOWN.

When directed by the Architects the Mason Contractor shall clean down all terra-cotta together with the brickwork, repoint the joints and leave the entire work satisfactory to them.

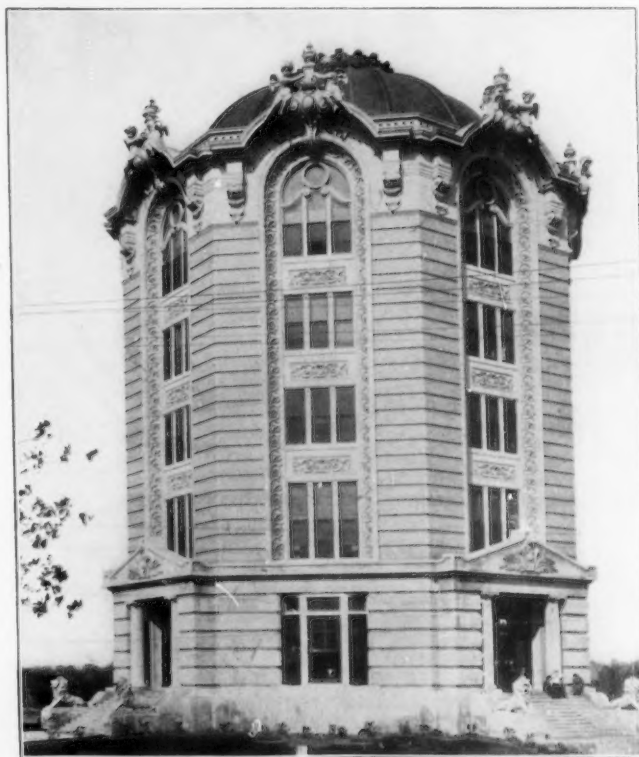
DEFECTIVE WORK.

If any cracking, blistering, deterioration or discoloration shall occur in the work at any time within a period of one year from the issuance of the final certificate, all such damaged portions must be replaced and made good by the Terra-Cotta Contractor without cost to the Owner.

Editorial Comment and Selected Miscellany

ARCHITECTS AND EXPERTS.

THE position of the expert in relation to a great modern building is something which is more persistently, we believe, misunderstood by the expert himself than by any one else. In fact, the expert on individual features of a great building is so recent a factor and has



WOMAN'S MAGAZINE BUILDING, ST. LOUIS, MO.
Herbert C. Chivers, Architect.
Built of St. Louis Hydraulic-Press Brick.

taken himself so seriously, on the whole, that it is only natural that from his standpoint the position of the architect as the director of the whole work and his own position as efficient manager of a portion of that whole work should become often confused. There is probably not one architect in fifty who knows as much about plumbing as any one of a dozen or more first-class plumbers in any large city. Neither is the architect likely to know much practically about carpentry or about masonry or any one of the dozen or more trades which ordinarily enter into the make-up of a building, but regarding which there is



DETAIL, MERCHANTS AND MINERS S. S. CO. BUILDING,
BALTIMORE, MD.
Charles E. Cassell & Son, Architects.
Atlantic Terra-Cotta Co., Makers.

no question of the architect's knowledge. Twenty-five years ago there were experts in plumbing who, it was assumed, would in time usurp a certain portion of the architect's functions; but with greater diffusion of knowledge the plumbing expert has almost disappeared as a factor, and it is only on the branches of engineering, pure and simple, of decoration in a lesser degree, and to a certain extent of landscape work, that the architect is supposed to be sufficiently inefficient not to be able to come to a right



MCKINLEY HIGH SCHOOL, CHICAGO.
W. B. Mundie, Architect.
Built of dark gray brick made by Columbus Brick & Terra-Cotta Co.

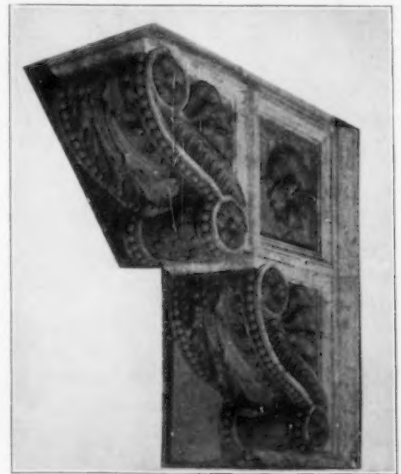
feeling in this matter is very clear and has been formed by observation of the practice both among engineers and architects. The employment of specialists about a building, when that specialist is given complete control of one department, is not so much a practical or engineering or architectural necessity as a matter of business and constructive expediency.

It is not that the architects are not able to, either through themselves or their trained corps of helpers, successfully plan all the ordinary details connected with a large building; but it is rather that such work, while a function of architecture, can safely be left to those who make a special business of it, leaving the architect more free to attend to the more vital matters of architectural design and planning. No architect with a large practice today would undertake to superintend personally all his buildings. He leaves these to specialists. At the same time he can very easily control his superintendence, and he does not actually need to surrender any real function of his profession by handing certain details over to others to work out. Just as a partnership of two or more architects has come to be considered an advisable architectural expedient, so has the employment of the specialist in the engineering, decorative and landscape work proven itself to be a business advantage.



DIAMOND NATIONAL BANK BUILDING, PITTSBURG, PA.
McClure & Spahr, Architects.
Fireproofed by National Fireproofing Co.

decision. And yet from our experience in the various cities of this country we believe that architects who would be classed as thoroughly well trained, are, as a rule, better acquainted with the engineering practices involved in their buildings than they are with the details of such simple things as masonry or plumbing. Our



DETAIL, EXECUTED BY BRICK, TERRA-COTTA & TILE CO.

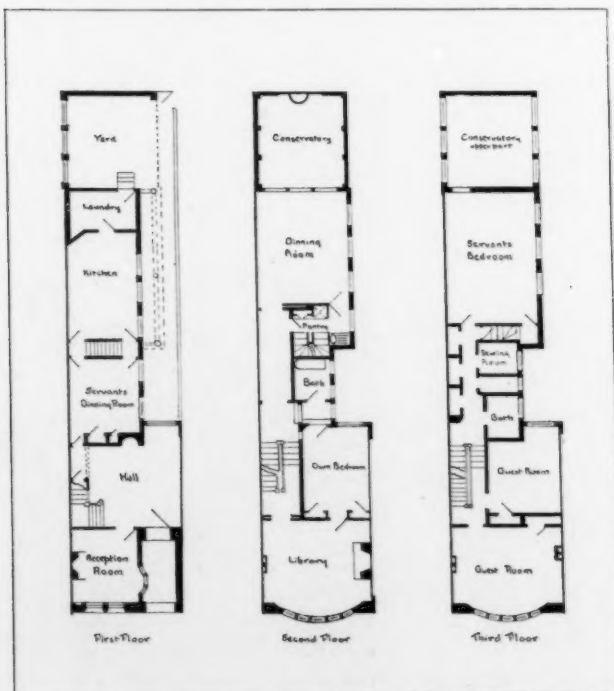


DETAIL, EXECUTED BY THE NEW YORK ARCHITECTURAL TERRA-COTTA CO.



CONSERVATORY, HOUSE 2047 CHESTNUT STREET, PHILADELPHIA.
Wilson Eyre, Architect.

tage to the architect himself. And while such surrender of a portion of the work could very easily be carried too far and the engineering details worked out quite distinct from the architecture, to the detriment of the building as a whole, it is beyond question that the standard of educational requirements on the part of our architects has on the whole fairly well kept pace with the introduction



PLANS, HOUSE 2047 CHESTNUT STREET, PHILADELPHIA.
Wilson Eyre, Architect.

of special problems into our large buildings. We advise the employment of specialists. We believe it is for the good of the building and for the better development of the profession, but under no circumstances ought the specialties to be worked out distinctly from the architecture. If the steel construction or the heating and ventilation is placed in the hands of an engineer, that engineer should make his drawings in the office of the architect, under his immediate direction and in daily consultation, not only with the architect himself, but with his assistants, before working out the other details of the building. To an equally positive extent is this true of the decoration and of the landscape work. The arts and the sciences, the practical requirements and the artistic touch, are one and inseparable if a building is to be a success. And it is the failure to recognize the absolute necessity of personal contact and coöperation that has brought

about a separation of feeling between some architects and some experts, a feeling which is bound to lessen rather than increase as experience and greater educational opportunities offer themselves to both parties, and especially in proportion as our architectural successes are better rounded and more complete.

IN GENERAL

The brick from which was built the new addition to the Hotel Imperial, illustrated in the half-tone plate form for this number,



KEITH'S THEATRE, PHILADELPHIA, PA.
Bruce Price, Architect.
Terra-Cotta made by Conkling-Armstrong Co.



EXHIBIT OF THE WINKLE TERRA-COTTA CO.,
WORLD'S FAIR, ST. LOUIS, MO.

were furnished by Robert C. Martin & Son, 156 Fifth Avenue, New York.

Wilkinson & Magonigle were the architects for the Sheldon Court Dormitory, illustrated in *THE BRICKBUILDER* for December, and not H. Van Buren Magonigle, as given at the time.

Jesse T. Johnson, architect, 1113 State Life Building, Indianapolis, Ind., has succeeded to the business of Dupont & Johnson. Manufacturers' catalogues and samples desired.



LOW RELIEF GLAZED FIGURE DECORATION IN OFFICE OF NORTHWESTERN
TERRA-COTTA CO., RAILWAY EX-
CHANGE BUILDING, CHICAGO.

The exhibit of the Tiffany Enamelled Brick Company at the St. Louis Exposition was awarded Grand Prize by the judges.

The Toronto Beaux Arts Club has just been formed, having as its purpose the advancement of its members in their respective callings, and also the promotion of good fellowship. The membership will comprise architects, draughtsmen, designers and those who are engaged in kindred work. The following officers were elected: Hon.

President, Frank Darling; Hon. Vice-Presidents, C. H. Acton Bond, W. A. Langton; President, S. Ashton Pentecost; First Vice-President, W. B. Van Egmond; Second Vice-President, Franklin E. Belfry; Secretary-Treasurer, L. McGill Allan.

The twentieth annual exhibition of the Architectural League of New York will be held in the building of the American Fine Arts Society, 215 West Fifty-seventh Street, New York City, from February 10 to March 4 inclusive.

The subjects for the Gold and Silver medals, the President's Prize, and the Henry O. Avery Prize, three competitions which are held under the auspices of the Architectural League of New York, are as follows: Medal Competition, "A Village Block in a Small Country Town"; President's Prize, Design for a Book-Plate; Avery prize, A Terra-Cotta Flower Box Suitable for Use on a Porch Between Columns.

At the second annual election of the Architectural Draughtsmen's Club of New York the following officers were elected to serve on the executive committee for the year 1905: President, L. A. Cramer; vice-president, A. T. Rose; recording secretary, W. F. Anderson; corresponding secretary, W. T. Smith; treasurer, A. M. Hedley. A programme of varied and inter-



RESIDENCE OF CHARLES HEAD, ESQ., BOSTON.

Shaw & Hunnewell, Architects.

The rear wall leaked badly when built in 1889. It was treated with Cabot's Brick Preservative and has never leaked since.



DETAIL OF FEATURE OVER ENTRANCE, 40-46 BROADWAY,
NEW YORK CITY.
Henry Ives Cobb, Architect.
Terra-Cotta made by Excelsior Terra-Cotta Co.

esting monthly prize competitions, combined with a series of discourses by prominent professional men, will constitute the year's current work.

In 1880 the Boston Fire Brick Company having a fire brick plant on its hands with no one to manage it, and the firm of Fiske & Coleman having an established business in the buying and selling of fire brick, sewer pipe,

etc., but having no fire brick plant, formed a "merger," the firm taking the management of the joint business under the title, "Boston Fire Brick Company, Fiske & Coleman, Mgrs." This merger agreement has been renewed from time to time till now, with some changes in the name of the managing firm, but with Mr. George M. Fiske always at the head of the management. Recently



DETAIL EXECUTED BY NEW JERSEY
TERRA-COTTA CO.

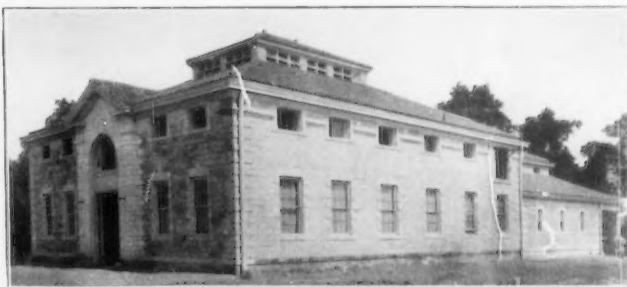
Mr. Fiske and Mr. Thomas W. Peirce, who for the past two years has been treasurer of the Fiske Brick Company, have purchased a controlling interest in the Boston Fire Brick Company, and the following officers of the corporation have been elected: George M. Fiske, president; Thomas W. Peirce, treasurer; J. Parker B. Fiske, clerk. The above are also directors with Charles B. Warren and Thomas B. Griggs. The business will go on as before



DETAIL, BY GEORGE E. MURPHY, ARCHITECT.
Perth Amboy Terra-Cotta Co., Makers.

under the title, "Boston Fire Brick Company, Fiske & Company, Mgrs."; the managing firm consisting of George M. Fiske, J. Parker B. Fiske and Thomas W. Peirce.

The trustees of the University of Pennsylvania announce the third competition for the Alumni Fellowship in Architecture. This fellowship, of the value of one thousand dollars, was established in 1903 for annual award during a term of five years in recognition of the



STABLE AT LEXINGTON, KY.
Copeland & Dole, Architects.
Roofed with American "S" Tile, Cincinnati Roofing Tile & Terra-Cotta Co., Makers.

action of the General Architectural Alumni Society in securing by general subscription among its members, for the needs of the School of Architecture, a fund of five thousand dollars.

All persons under thirty years of age who have taken at the University of Pennsylvania either the degree of B. S. or M. S. in architecture or the certificate of the two-year special course in architecture are eligible to the competition, save only such as may have already secured opportunities for foreign travel and study equivalent to those conferred by this fellowship.

WANTED: By an institution engaged in numerous building operations, young architect or architect's senior student and draughtsman; one possessed of some practical knowledge and with an aptitude for detail. He will be required to scrutinize plans and specifications furnished by architects; keep in communication with the clerk of the different works; see that detailed working drawings are promptly placed in the hands of the various contractors; and generally to exercise a systematic supervision of the operations. Permanent position. The salary will be in keeping with the experience and capabilities of the appointee. Address Inspector, care The Brickbuilder.

DRAUGHTSMAN WANTED: Steady position offered if satisfactory. Apply Atlantic Terra-Cotta Co., Tottenville, Staten Island.

Competition for a Fireproof House

Constructed of Terra-Cotta Hollow Tile Blocks To cost \$10,000

First Prize, \$500 Second Prize, \$200 Third Prize, \$100

PROGRAMME



THE possibilities in the use of burnt clay in its various forms in our domestic architecture have only begun to be realized.

That dwellings of moderate cost should be made fireproof is not only recognized as desirable, but practicable.

The object of this competition is to call out designs for a house, the walls, floors and partitions of which are to be of terra-cotta hollow tile blocks.

The cost of the house, exclusive of the land, is not to exceed \$10,000. Designs calling for a more expensive house will not be considered.

A detailed statement of costs must accompany each design. This statement is to be typewritten on one side only of a sheet of paper measuring 11 inches x 8½ inches.

A further object of this competition is to encourage a study of the use of burnt clay products of the particular class mentioned, in an artistic as well as practical manner, and to obtain designs which would be appropriate for such materials.

In the selection of blocks for exterior walls, terra-cotta hollow tile fireproofing blocks must be employed, and not architectural terra-cotta blocks.

REQUIREMENTS: The house is supposed to be built in the suburbs of a large city, upon a corner lot, with a frontage of 100 feet towards the south and 150 feet on the side street towards the east. The grade is practically level throughout. The house is to be two stories high with an attic. This attic may be either in the pitch of the roof or a third story may be treated as an attic with a flat roof. On the first floor there is to be a reception room, a library, a dining-room, a kitchen and the ordinary allowance for pantries, coat rooms, stairways, etc. The front hall may be treated as desired. In the second story there are to be two bathrooms, four chambers, a sewing room, a den, linen closet, etc. The third story should contain at least two servants' rooms, besides a storeroom. Fireplaces, bay windows, seats, etc., are at the option of the designer.

The clear height is to be in first story 10 feet, second story 9 feet, third story optional with the designer. The cellar need not be specially planned, but will have a clear height of 8 feet. Arrangement of piazzas to be left with the designer.

CONSTRUCTION: While the method of construction for walls, floors and partitions is to be determined by the designer, the following suggestions are offered as being practicable and admissible:

First. Outside walls may be of hollow tile blocks 8 inches thick, lined on the interior with 4-inch furring tile, the treatment of the faces of the blocks to be appropriate for such materials.

Second. Outside walls may be of hollow tile blocks 8 inches thick, lined on the interior with 4-inch furring tile, the face of the wall to be rough cast or plastered.

Third. The outside walls may be faced with brick, with a backing of 8-inch hollow tile blocks.

Fourth. The outside wall may be built with an outer and inner wall, with an air space of 4 inches between, using in each wall a 4-inch hollow tile. The treatment of the face of such a wall, and the manner of bonding the outer and inner walls, are left to the designer. The plaster finish may be applied direct to the interior surface of such a wall.

If hollow tile blocks are used for facings, any special features in the finish or treatment of their exposed surfaces should be given in a footnote on sheet showing elevations.

For the interior partitions terra-cotta blocks are to be used.

For the floors one of the long span, terra-cotta hollow tile block systems now on the market, which are adapted up to spans of 20 feet without the use of steel beams, or a system which employs terra-cotta hollow tile blocks in connection with light steel construction.

DRAWINGS REQUIRED: On one sheet the front and a side elevation, at a scale of four feet to the inch; also plans of first and second floor, at a scale of eight feet to the inch, and on another sheet details showing clearly the scheme of construction for the exterior walls, the floors and the partitions, together with other details drawn at a scale sufficiently large to show them clearly. Graphic scales to be on all drawings.

The size of each sheet is to be exactly 24 inches by 36 inches. The sheets are not to be mounted.

All drawings are to be made in black line without wash or color. All sections shown are to be crosshatched in such manner as to clearly indicate the material, and the floor plans are to be blocked in solid.

Each set of drawings is to be signed by a *nom de plume* or device, and accompanying same is to be a sealed envelope with the *nom de plume* on the exterior and containing the true name and address of the contestant.

The drawings are to be delivered flat at the office of THE BRICKBUILDER, 85 Water Street, Boston, Mass., on or before April 15, 1905.

The designs will be judged by well-known members of the architectural profession.

In making the award the jury will take into account, first, the fitness of the design in an artistic sense to the materials employed; second, the adaptability of the design as shown by details to the practical constructive requirements of burnt clay; third, the relative excellence of the design.

Carefully made estimates giving relative costs of fireproof and ordinary wood construction for houses built from the designs awarded the three cash prizes will be obtained by the publishers of THE BRICKBUILDER, and given at the time the designs are published.

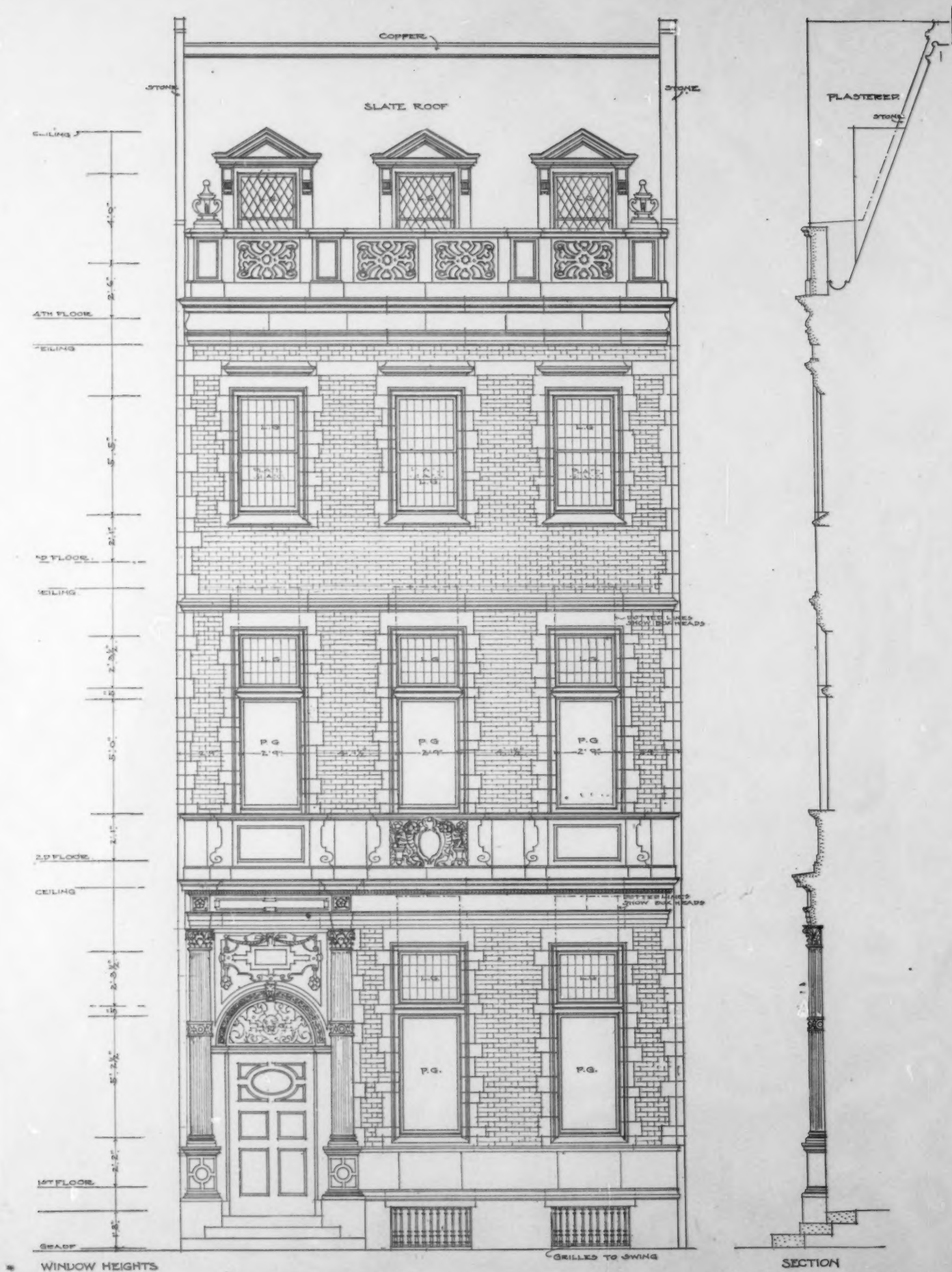
The prize drawings are to become the property of THE BRICKBUILDER, and the right is reserved to publish or exhibit any or all of the others. Those who wish their drawings returned, except the prize drawings, may have them by enclosing in the sealed envelopes containing their names ten cents in stamps.

For the design placed first in this competition there will be given a prize of \$500.00.

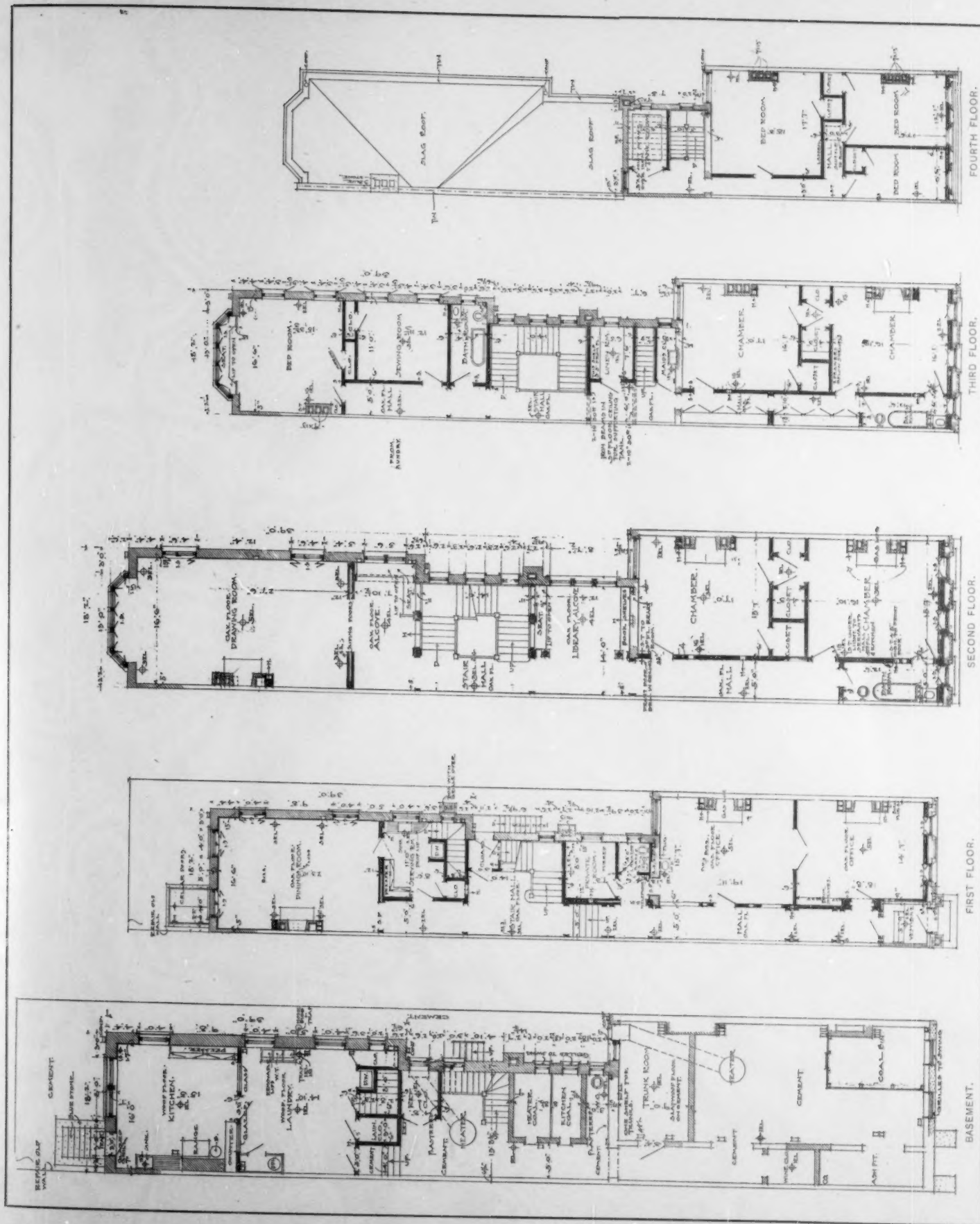
For the design placed second a prize of \$200.00.

For the design placed third a prize of \$100.00.

In the study of this problem, competitors are invited to consult freely with the manufacturers of burnt clay fireproofing or their agents. This competition is open to every one.

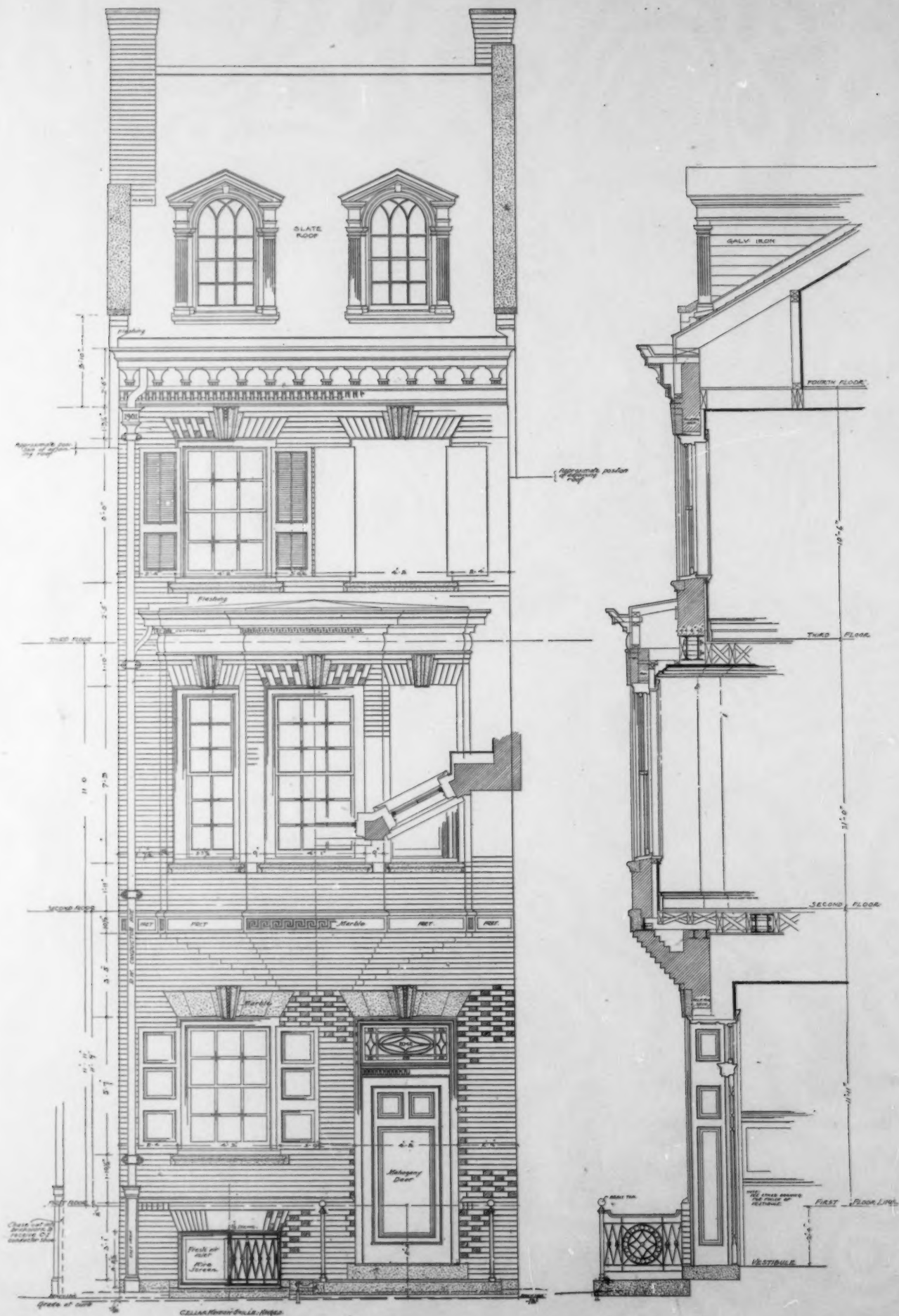


HOUSE, 1509 WALNUT STREET, PHILADELPHIA, PA.
NEWMAN & HARRIS, ARCHITECTS.



PLANS. HOUSE, 1509 WALNUT STREET, PHILADELPHIA, PA.

NEWMAN & HARRIS, ARCHITECTS.

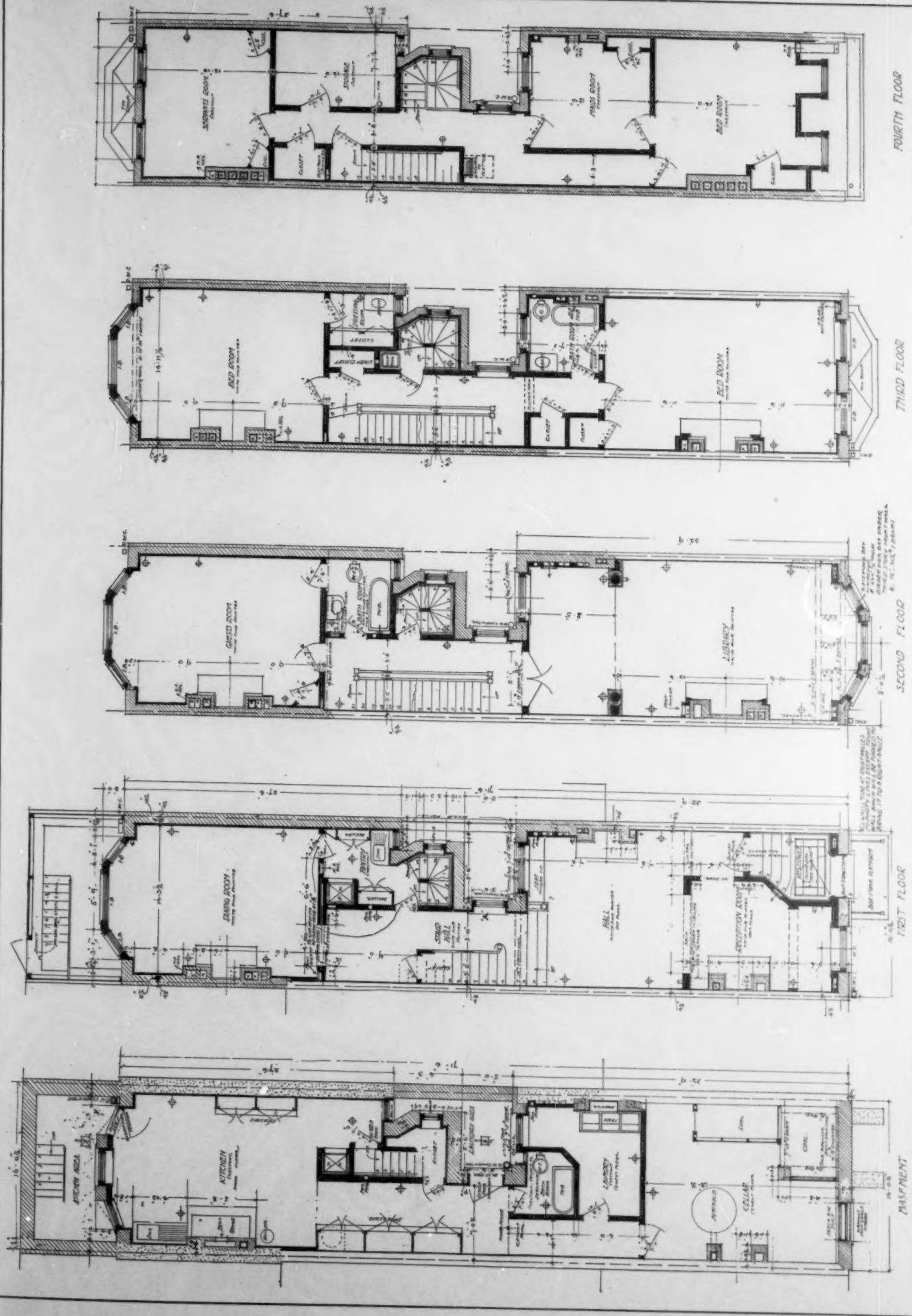


HOUSE, 2042 LOCUST STREET, PHILADELPHIA, PA.
EDGAR V. SEELER, ARCHITECT.

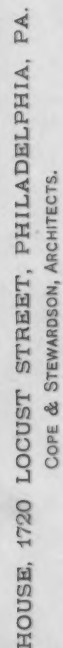
THE BRICKBUILDER.

VOL. 14. NO. 1.

PLATE 4.

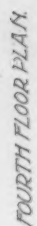


PLANS, HOUSE, 2042 LOCUST STREET, PHILADELPHIA, PA.
EDGAR V. SEELE, ARCHITECT.



VOL. 14. NO. 1.

PLATE 6.



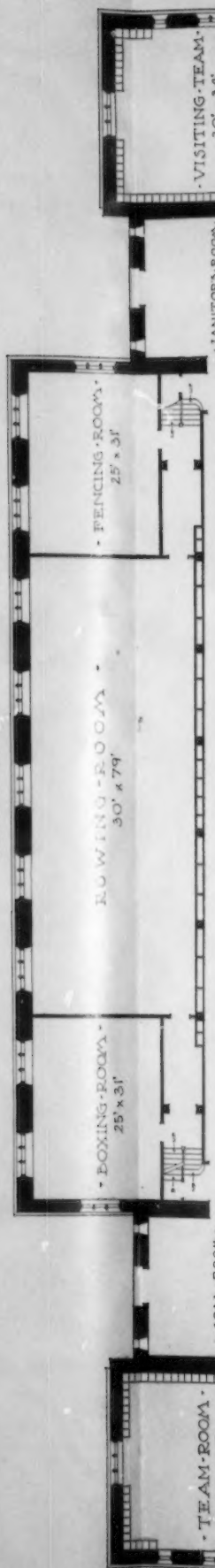
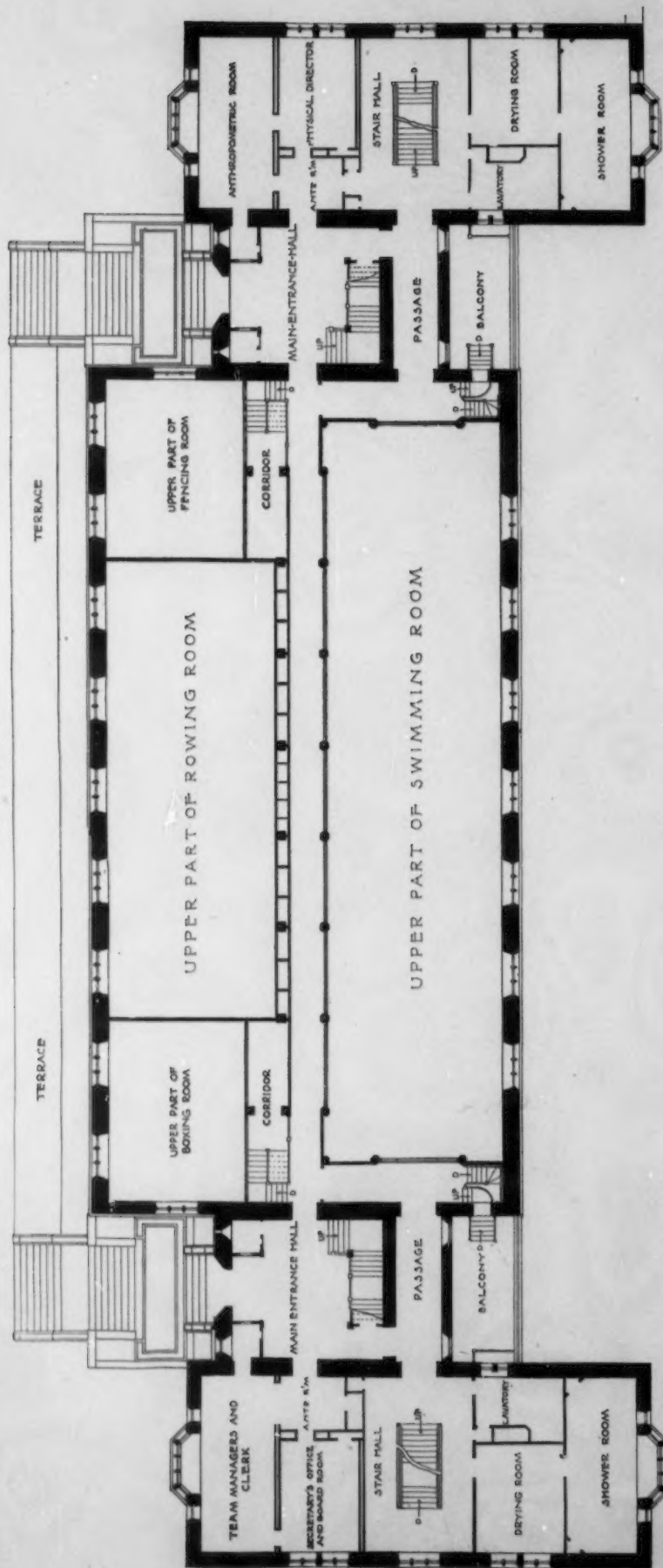
THIRD FLOOR PLAN.

SECOND FLOOR PLAN

FIRST FLOOR PLAN

BASEMENT PLAN.

PLANS, HOUSE, 1720 LOCUST STREET, PHILADELPHIA, PA.
COPE & STEWARDSON, ARCHITECTS.

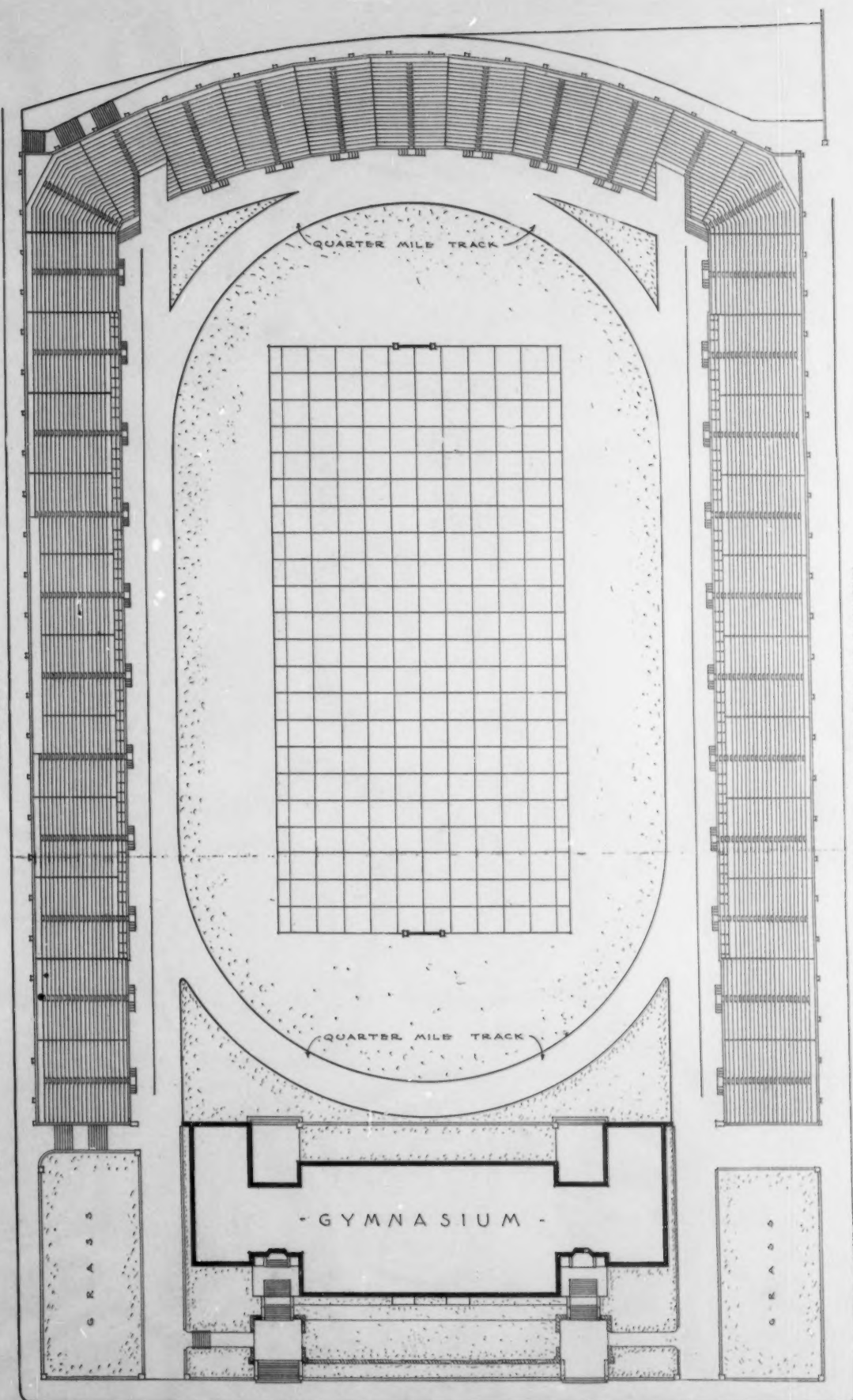


BUILDER.

PLATES 7 and 8.

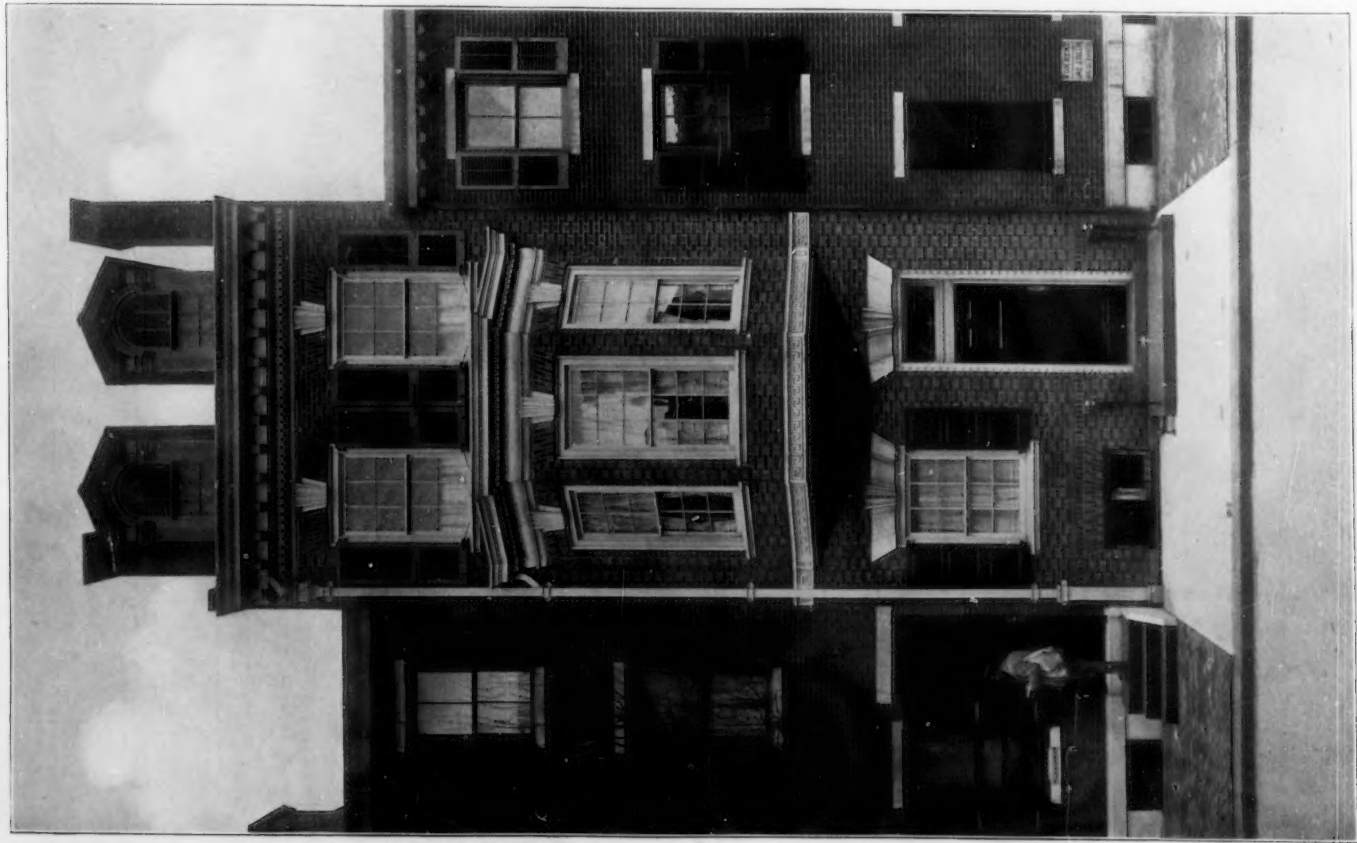


FIRST FLOOR PLAN.



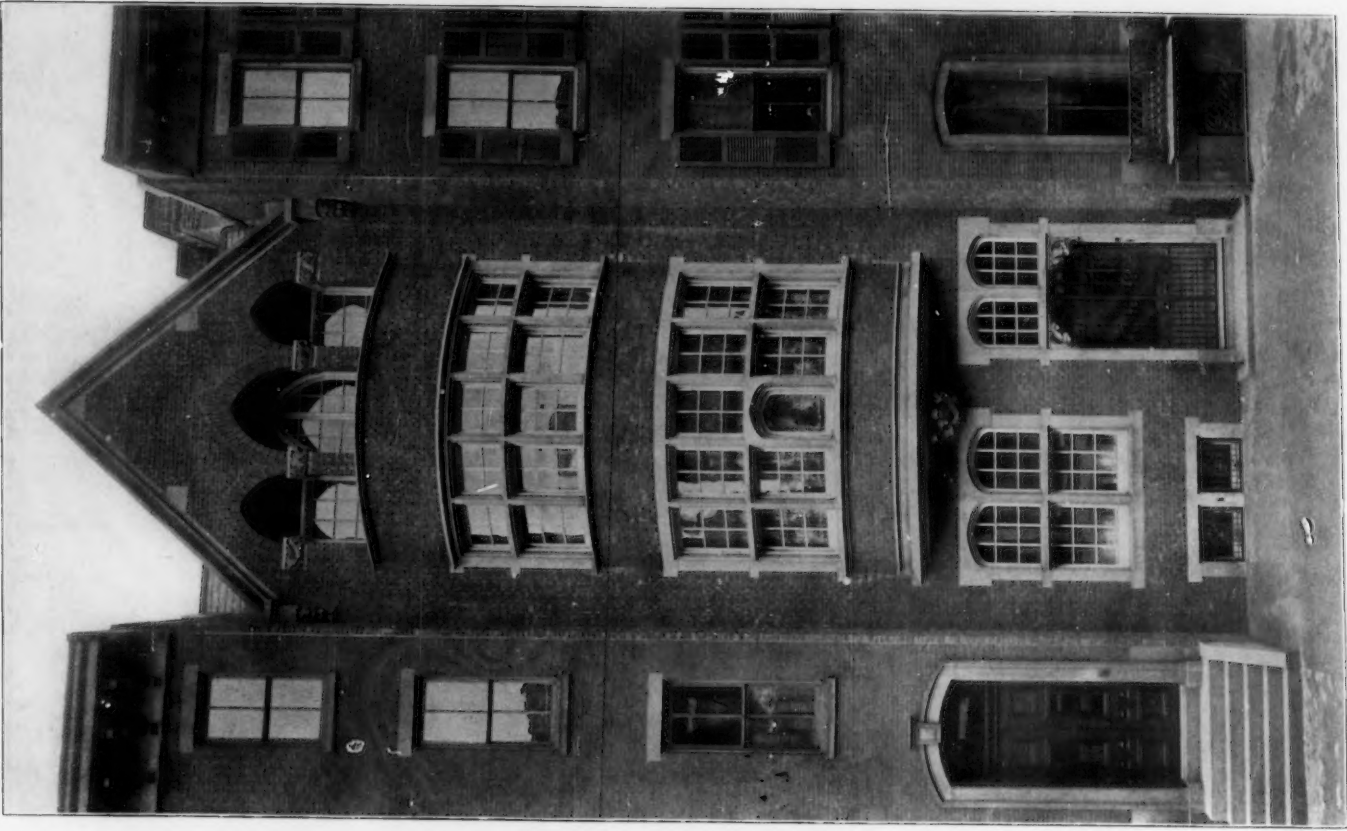
GROUND PLAN, ATHLETIC FIELD AND GYMNASIUM.
PLANS, GYMNASIUM, UNIVERSITY OF PENNSYLVANIA, PHILADELPHIA, PA.
FRANK MILES DAY & BROTHER, ARCHITECTS.





2042 LOCUST STREET.
E. V. SEELER, ARCHITECT.

HOUSES AT PHILADELPHIA, PA.



2047 CHESTNUT STREET.
WILSON EYRE, ARCHITECT.

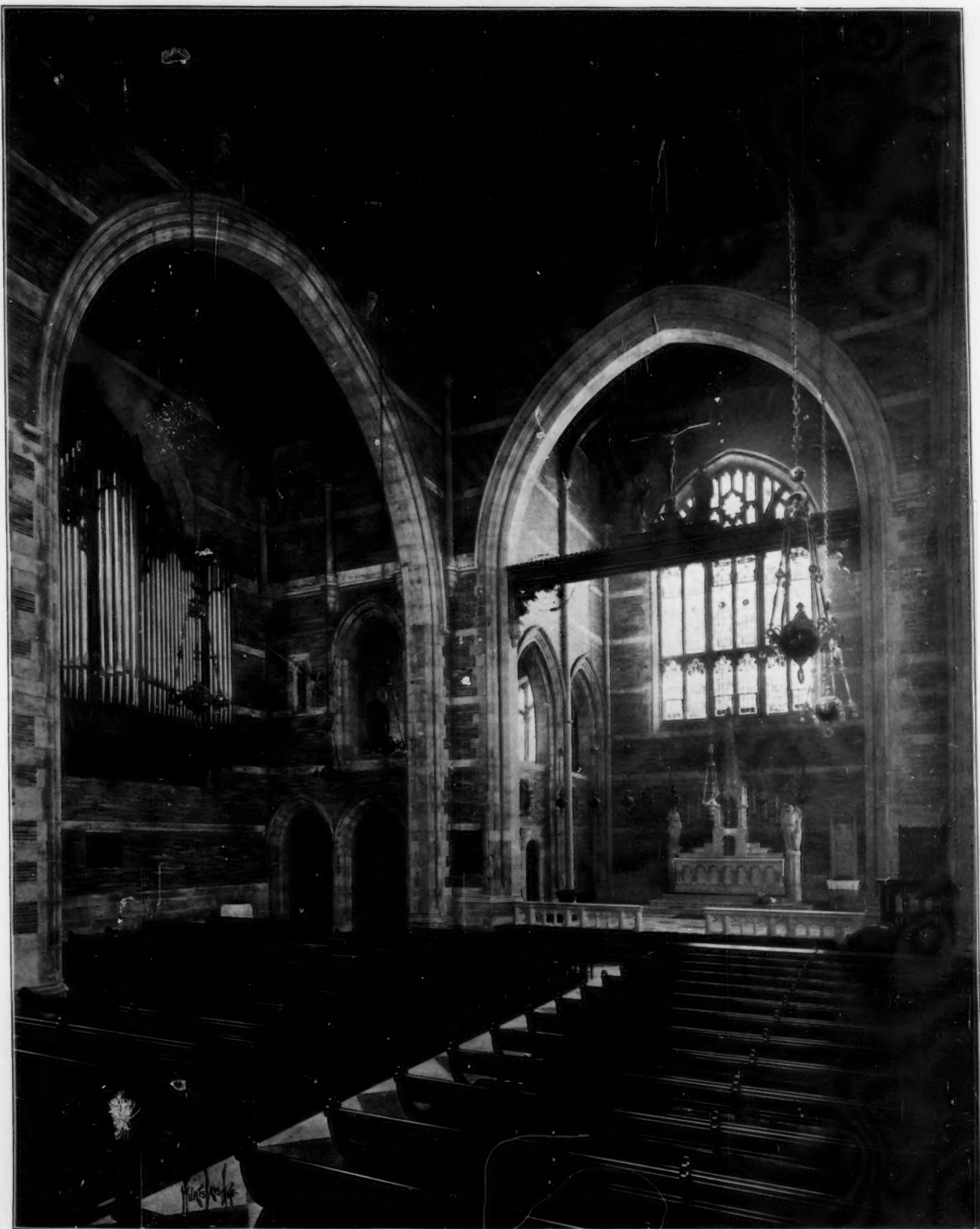
THE BRICKBUILDER,
JANUARY,
1906.





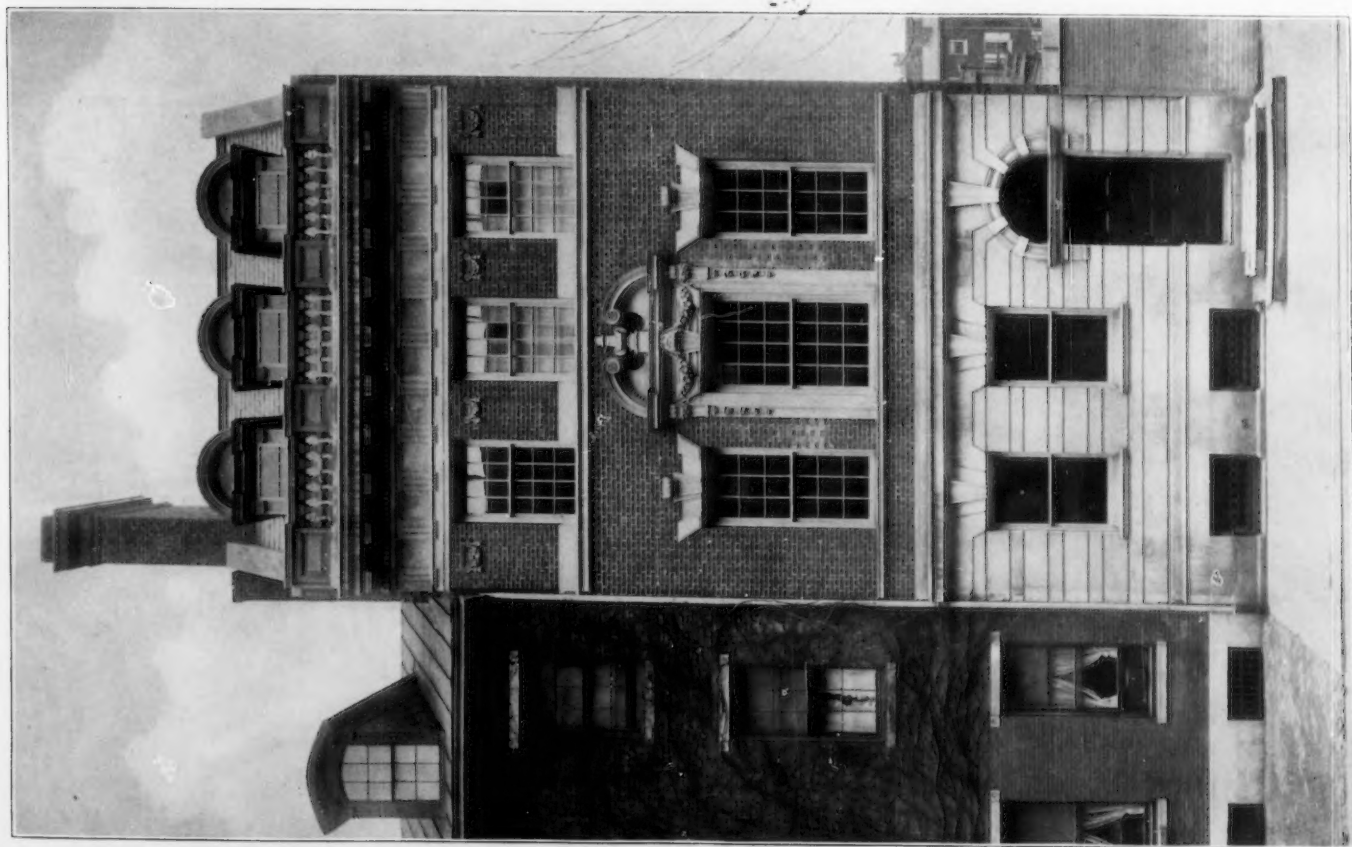
FROM THE FIELD.
 GYMNASIUM, UNIVERSITY OF PENNSYLVANIA, PHILADELPHIA, PA.
 FRANK MILES DAY & BROTHER, ARCHITECTS.



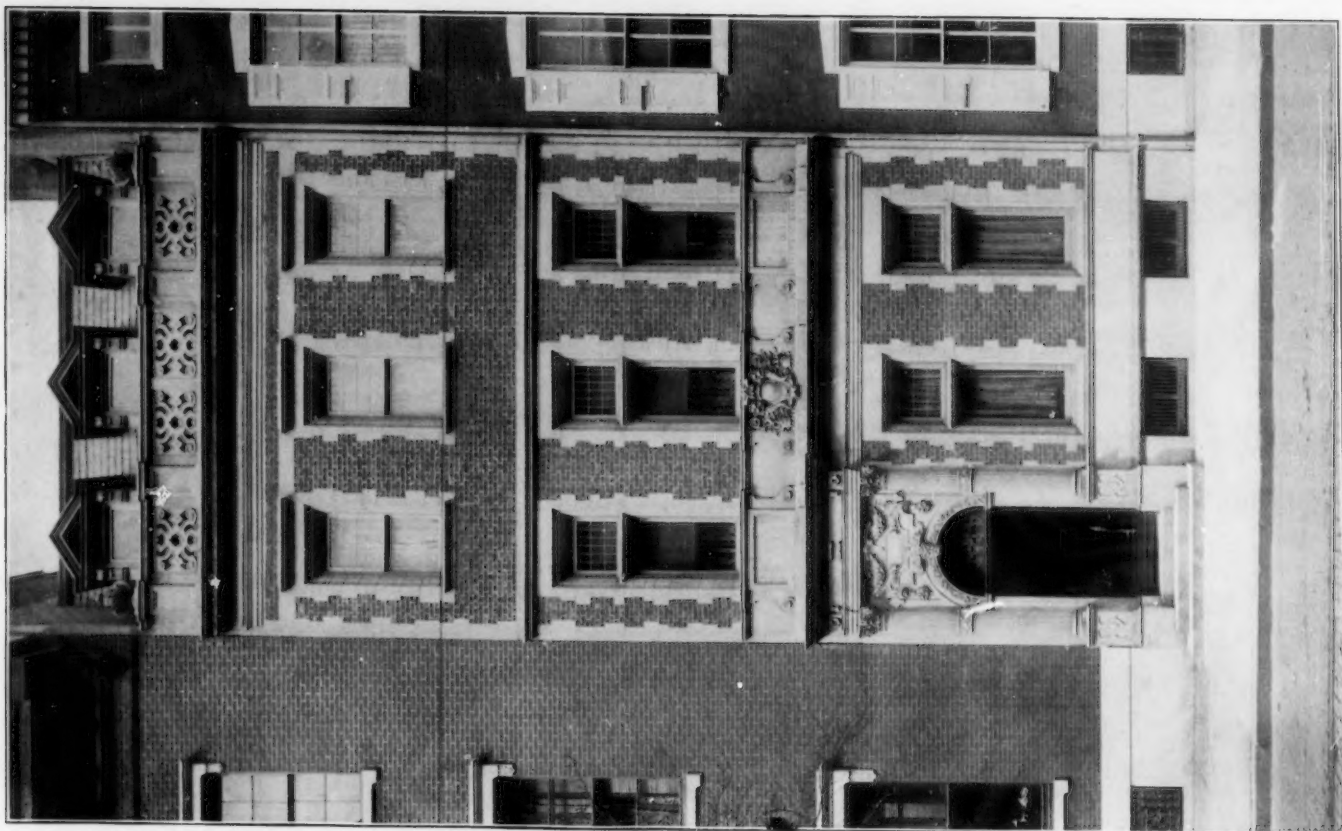


INTERIOR, ST. IGNATIUS EPISCOPAL CHURCH, WEST END AVENUE, NEW YORK CITY.
CHARLES C. HAIGHT ARCHITECT.





1720 LOCUST STREET.
COPE & STEWARDSON, ARCHITECTS.



1509 WALNUT STREET.
NEWMAN & HARRIS, ARCHITECTS.

HOUSES AT PHILADELPHIA, PA.

THE BRICKBUILDER,
JANUARY,
1905.





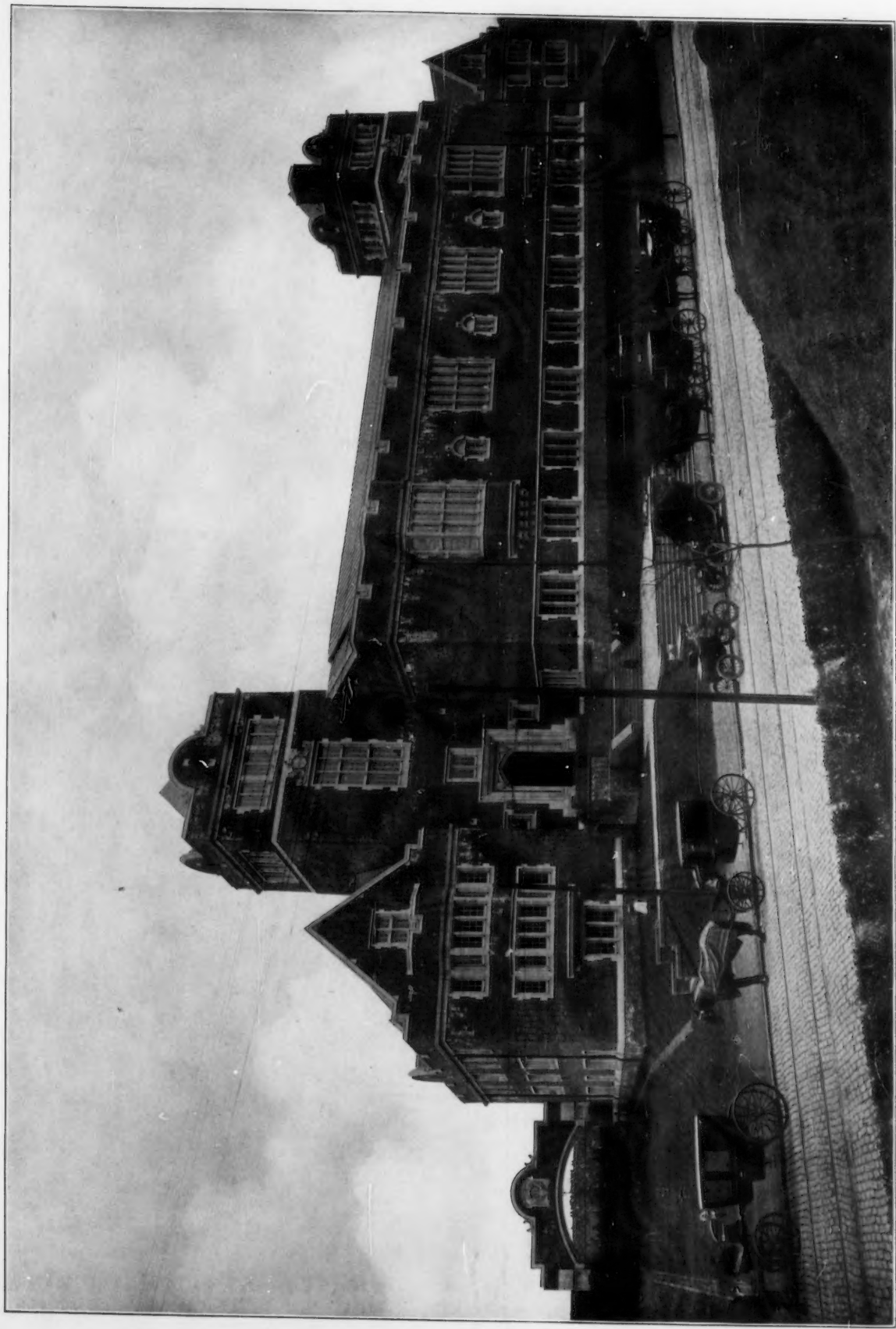
ADDITION TO THE HOTEL IMPERIAL, NEW YORK CITY.

(TALLEST BUILDING OF THE BLOCK.)

WARREN & WETMORE, ARCHITECTS.

THE BRICKBUILDER,
JANUARY,
1905.





FRONT VIEW.

GYMNASIUM, UNIVERSITY OF PENNSYLVANIA, PHILADELPHIA, PA.
FRANK MILES DAY & BROTHER, ARCHITECTS.

THE BRICKBUILDER,
JANUARY,
1906.

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THE BRICKBUILDER.

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For sale by all newsdealers in the United States and Canada. Trade supplied by the American News Company and its branches.

Competition for a Village Church

First Prize, \$500 Second Prize, \$200 Third Prize, \$100

PROGRAMME



HE problem is an Episcopal Church in a large village. The location may be assumed in any portion of the United States. The lot is 80 feet wide on the west and 180 feet deep on the south. It is on a corner of two streets of equal importance. To the southwest a main avenue communicates with the principal square of the village, the grade of this street down to the square being 7 per cent. The lot itself is perfectly level and is in the residential portion of the village. The problem considers only a church with sacristies for clergy, choir and altar guild. At some future time the property immediately adjoining to the north is to be acquired, and on this property will be erected a parish house and rectory. The church will, therefore, be placed and designed with this future extension in view.

The church is to seat five hundred, the choir thirty. A small side chapel is optional.

The following points must be considered in the design:

- A. Frank and logical expression of the prescribed material.
- B. Historical and traditional associations of the institution for which the structure is provided.
- C. Historical and architectural antecedents, associations and surroundings of the assumed location.

Drawings required:

A plan at a scale of 16 feet to the inch, a front elevation and a side elevation at a scale of 8 feet to the inch, all on one sheet, and a sheet of details at a scale of one-half inch to the foot. The size of each sheet shall be exactly 24 inches by 32 inches. The sheets are not to be mounted. All drawings are to be in black ink, without wash or color, except that the walls on the plan are to be blacked in.

The exterior of the building is to be designed entirely in terra-cotta, and the same material may be used at will in the interior. Colored terra-cotta, or faience, may be employed.

It must be borne in mind that one of the chief objects of this competition is to encourage the study of the use of architectural terra-cotta. There is no limitation of cost, but the designs must be suitable for the location, for the character of the building, and for the material in which it is to be executed. The details should indicate in a general manner the jointing of the terra-cotta and the sizes of the blocks.

In awarding the prizes, the intelligence shown in the constructive use of terra-cotta and the development or modification of style, by reason of the material, will be taken largely into consideration.

Every set of drawings is to be signed by a nom de plume or device, and accompanying same is to be a sealed envelope with the nom de plume on the exterior and containing the true name and address of the contestant.

The drawings are to be delivered flat at the office of THE BRICKBUILDER, 85 Water Street, Boston, Mass., charges prepaid, on or before December 15, 1904.

The prize drawings are to become the property of THE BRICKBUILDER, and the right is reserved to publish or exhibit any or all of the others. Those who wish their drawings returned may have them by enclosing in the sealed envelopes containing their names, ten cents in stamps.

The designs will be judged by three well-known members of the architectural profession.

For the design placed first in this competition there will be given a prize of \$500.

For the design placed second a prize of \$200.

For the design placed third a prize of \$100.

REPORT

OF THE

JURY OF AWARD.

THE Jury of Award wish to commend the competitors for an excellent series of designs submitted in competition, and especially to commend the sheets of details, which in many cases were admirable in design and rendering.

The following considerations influenced the decision, apart from general merit of plan and mass: First, manifest terra-cotta treatment of materials; second, expression of a village church rather than of a church for a large community.

A very considerable number of the designs were essentially adapted to stone, and had been changed to terra-cotta in material only, not in specific treatment, and an equally considerable number were more allied in type to a church for a large community rather than to a village church. Especially was this the case with the designs in which a Classic or Gregorian type of architecture was adopted.

The plans were judged for their general more than for their specific merit; that is, failure to thoroughly comprehend details of ecclesiastical service was not deemed fatal if the plan was otherwise an able one.

The diagonal approach and seven per cent grade were considered in relation to the position and effect of the masses of the body of the church and tower.

FIRST PRIZE (pages 4 and 5). The design is one for a village church, unmistakably of terra-cotta, with excellent details. The plan is simple, well arranged, the proportions of exterior openings express changes in plan, the tower is well placed and proportioned to the mass of the church. The objection to the plan is the irregularity of the piers supporting the clerestory caused by the penetration of the tower into the aisle, which however could be readily adjusted. The buttresses are well treated, and the fenestration is good and well contrasted with wall surfaces.

The porch and window opposite the chancel are especially well designed, the arch treatment of this window being very effective. The variation of wall treatment by decorated headers is peculiarly suggestive of terra-cotta.

The termination of the tower could be improved both in its silhouette and in the horizontal course, which seems heavy.

SECOND PRIZE (pages 6 and 7). This design expressed terra-cotta treatment better than any other in the series, and is manifestly a village church, but there are serious objections to its masses both in plan and ensemble. The tower is well placed, but is too low, the cubical mass of the aisle portion does not compare well with the mass of the church, and

the plan is badly broken at the chancel end. It was the admirable detail sheet and the feeling of terra-cotta which placed this design high, despite a general heaviness of mass.

THIRD PRIZE (pages 8 and 9). As far as plan, proportion and artistic quality are concerned, this is the best design presented, but it is hardly a village church. In all other respects this design is to be most highly commended, in plan, masses, position of tower, composition and details. It required a certain sense of justice to the other competitors on the part of the jury to place this design third, and the fact that it was premiated despite its size indicates its superiority to all others of its class.

FIRST MENTION (pages 10 and 11). A well proportioned, well planned design, with good masses and tower well placed, details and fenestration excellent. This design, in common with others, has a certain lack of termination in the tops of the towers and buttresses, and also lacks wall surface at the ends of the series of large nave windows. It would have made a marked improvement in the design if the windows nearest the ends of the church had been made smaller than the others.

SECOND MENTION (pages 12 and 13). With good scheme of plan, but eccentricities of minor parts which would compose badly in perspective. Strong accent of vertical motives and well placed and well handled detail. The fenestration is peculiarly ingenious.

THIRD MENTION (pages 14 and 15). A pronounced "Beaux Arts" design, with the virtues and faults of the type, but excellent of its kind. Admirable plan and proportions of nave wall and openings. Nave would seem very thin on end. Tower with interesting termination. No character whatever, traditional or otherwise, of a church in the design, but it would make a very handsomely proportioned façade for a civic hall. Detail sheet extremely well rendered.

MENTION (pages 16 and 17). Well planned, well massed church. Top of tower is especially well handled and effective. Detail sheet admirably drawn.

MENTION (pages 18 and 19). Well planned, well massed church, well detailed and fenestrated, but of not so great interest as others of its type.

MENTION (pages 20 and 21). Small cathedral, rather dry and uninteresting with harsh fenestration.

MENTION (pages 22 and 23). A peculiar adaptation of a transepted plan with piers and aisles omitted, extremely difficult to treat successfully

where tower penetrates mass. Tower seems too large for church. Otherwise excellent church, with admirable grouping of detail, of fenestration and parapet.

DESIGN (page 24). A most remarkably consistent apotheosis of parallel bands and rectangular masses. Embryonic architecture, very harmonious from the unanimity of its factors, and very childlike in its lack of development. Ingeniously worked out and well rendered.

DESIGN (page 25). Gregorian type, with consequent clumsy detail, plan not especially good. Poor transition between solids of tower. Bad relative proportion of transept and nave windows. Thin porch.

DESIGN (page 26). Gregorian, the best of the Gregorian designs, with very excellent side façade skillfully proportioned. Porch would seem light for the mass behind as plan indicates. Zones of tower not as well relatively proportioned as the remainder of building.

DESIGN (page 27). Gregorian, poor plan, uninteresting side elevation. Detail of clock zone to tower seems heavy for modillioned cornice below.

DESIGN (page 28). Church of good proportions, of stone in character. The scheme of carrying the columns around the base of the tower as a peristyle seems unjustified by the plan.

DESIGN (page 29). A Spanish or Mexican type, best expressed with white plastered wall. Tower invades the church floor. Decoration around end window seems excessive.

DESIGN (page 30). Has interesting portions and details. The Giralda-like tower needs greater height, the belfries would seem thin on edge. The roof of the side porch would make an awkward termination for the colonnade, and the colonnade itself seems gratuitous. The entrance and gable motive could be made very effective.

DESIGN (page 31). Mission type, well proportioned and detailed. Dome, relation to nave and transept difficult of treatment and not sufficiently explained on plan and elevation.

DESIGN (page 32). Uninteresting French Modern Romanesque, not well planned, with lantern too small for tower.

DESIGN (page 33). Over-rendered and over-detailed, chamfered tower coarse in scale. Masses of chapel group badly about the apse with its flying buttresses, which latter seem hardly justified by the weight they are called upon to carry.

DESIGN (page 34). Poor plan. Thin Romanesque, with constructive solids poorly related to each other. Tower not well placed.

DESIGN (page 35). Consistent and interesting, essentially a village church in terra-cotta. Tower badly placed. Well rendered.

DESIGN (page 36). Romanesque. Gable and flanking towers not well related, windows in chancel end badly proportioned with wall masses.

DESIGN (page 37). Elaborate Italian Roman-

esque. Tower poorly placed. Wall areas and openings not well proportioned.

DESIGN (page 38). Undoubtedly a village church, but with too many and various motives.

DESIGN (page 39). Plastic. Has much merit. The tower especially is very good.

DESIGN (page 40). Excellent front, well placed detail and good fenestration.

DESIGN (page 41). Good mass. Comparatively uninteresting design.

DESIGN (page 42). Exterior admirably expresses plan. Type is that of a stone church.

DESIGN (page 43). Masses on either side of tower not well balanced. Well rendered design, with wall surface somewhat too equally ornamented, producing lack of contrast.

DESIGN (page 44). A small cathedral with no plain surfaces, over-decorated.

DESIGN (page 45). Size of transept window too large for slight projection of transept and for other fenestrations. Over-decorated.

DESIGN (page 46). Exterior well expresses plan. Good tower. This design, with several others already commended, has distinct merit but is not equal to others of its type.

DESIGN (page 47). Poor relative proportions of masses, especially in the scale of chancel to mass of church. Fenestration restless.

DESIGN (page 48). A village church, but with harsh and heavy detail.

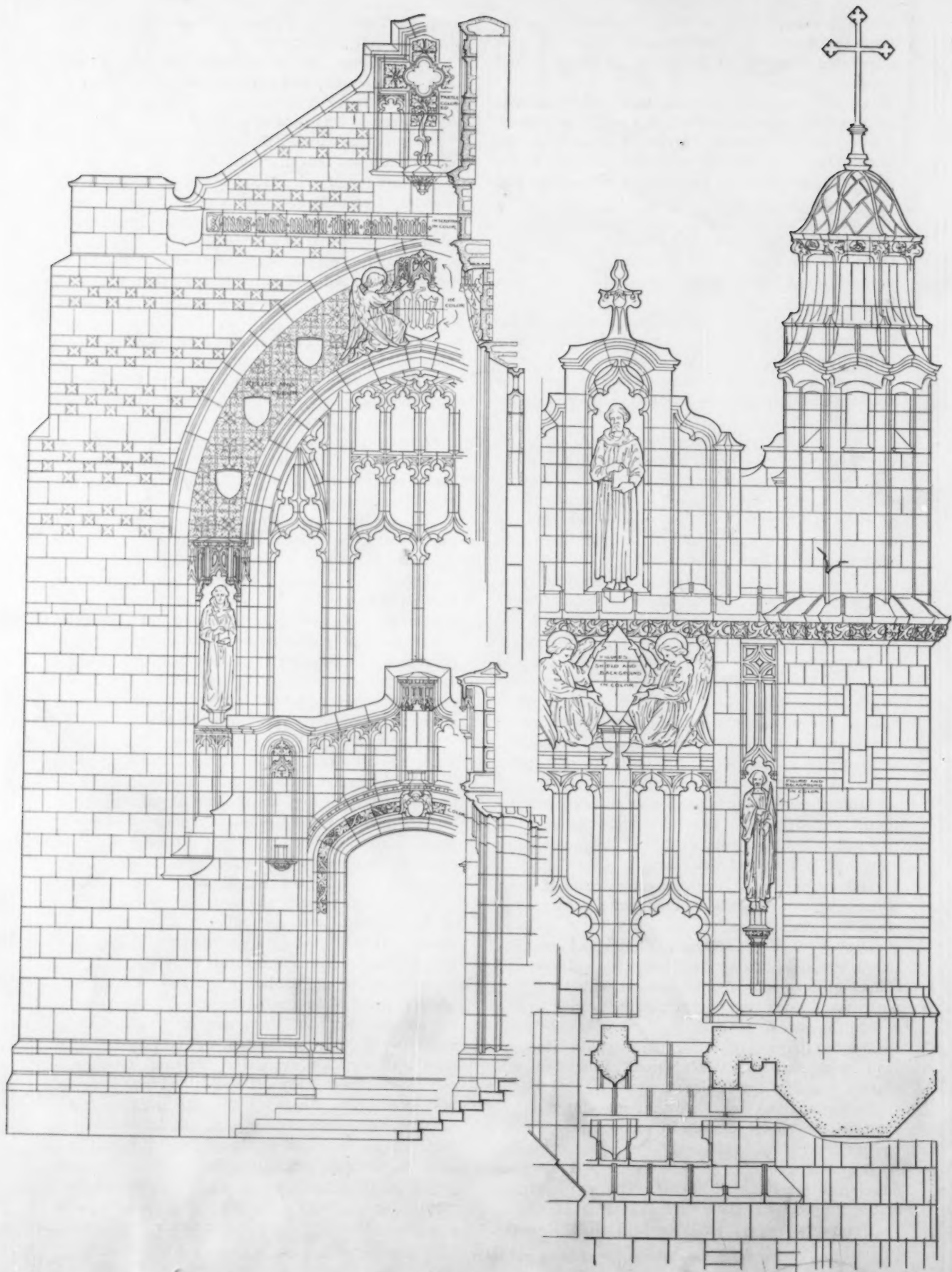
DESIGN (page 49). Peculiar and not successful tower, seemingly without termination. Poorly proportioned window over entrance.

DESIGN (page 50). Planned and rendered with certain architectural knowledge, but bizarre in design and exceedingly restless in sky line.

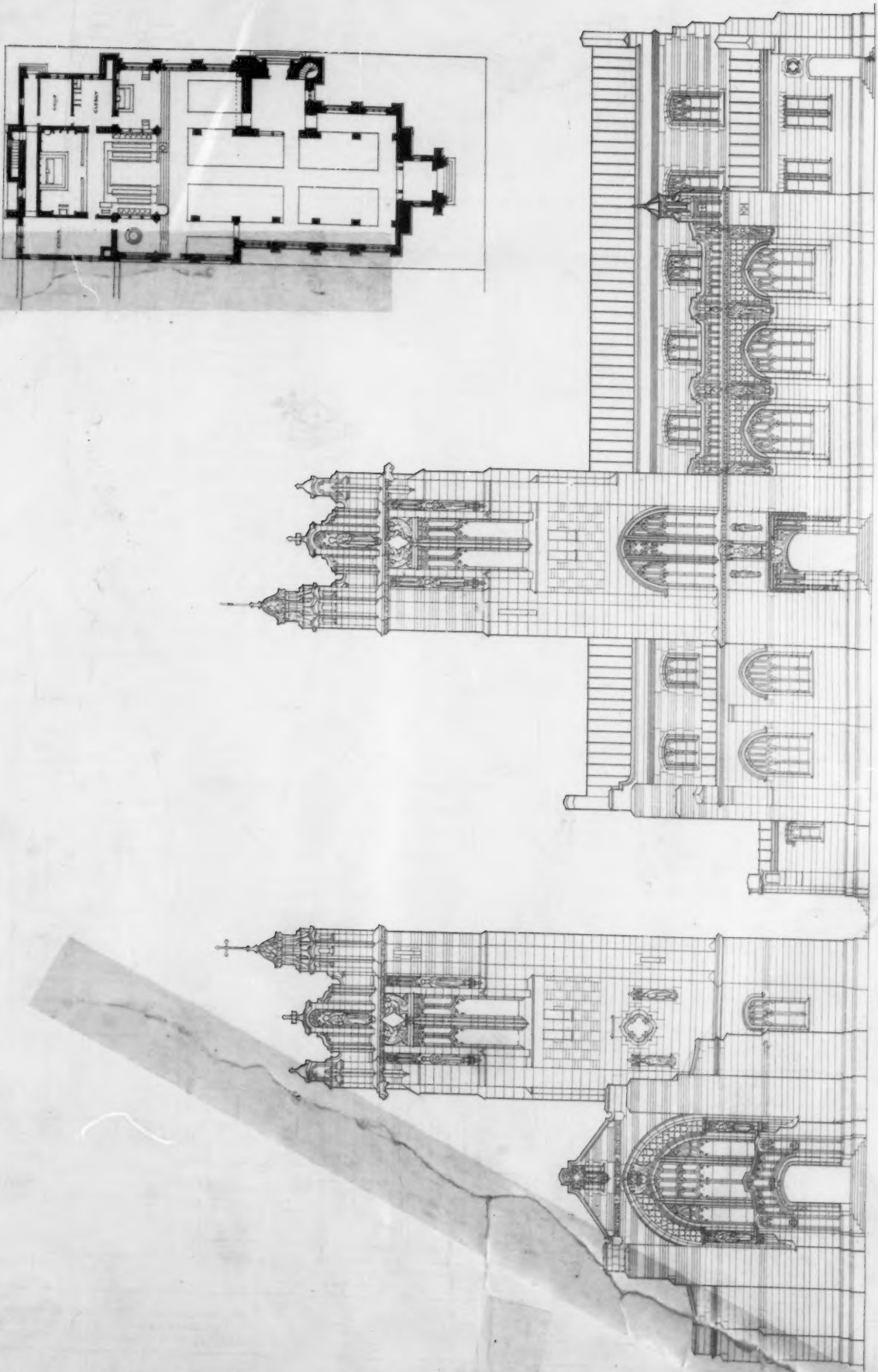
DESIGN (page 51). A reminiscence of Wrexham, with the faulty fenestration of the tower.

It will be seen from the criticisms, which are intended merely to suggest possible improvements in the designs, that there were many designs of nearly equal merit and that very slight differences caused some to be placed ahead of others. These differences were found in the general proportions of masses and of windows to walls and to each other, in contrasts of details with surfaces and in skill in the detail sheets. It will also be noticed that the majority of the presented designs are Gothic in type, which is to be expected from tradition and from the natural picturesqueness suggested by a hilly village site; but on the other hand there were no so-called Colonial types of design presented, and no very excellent ones of the types suggested by the brick and terra-cotta of Northern Italy. The Gothic types were the best presented. In this competition, as in many another, architectural precedent has influenced the designers more than it need to do, and it is still possible to imagine work less bound by precedent which would be premium compelling. The one example (Design, page 24) which approached the problem from this point of view was merely embryonic.

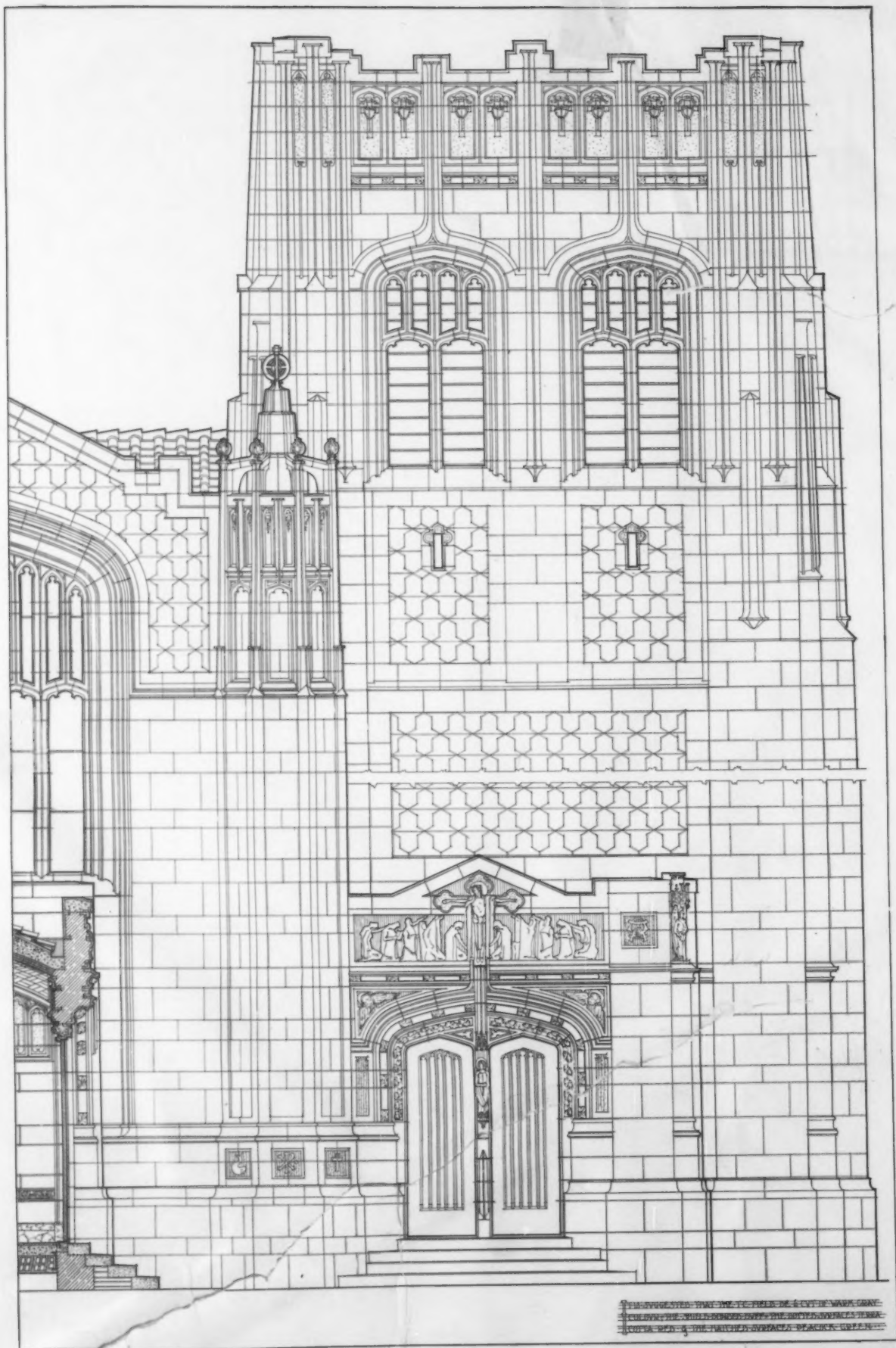
(The arrangement of plates following "Mentions" is not intended to indicate the order of merit of the designs.)



DETAIL BY ADDISON B. LE BOUTILLIER.



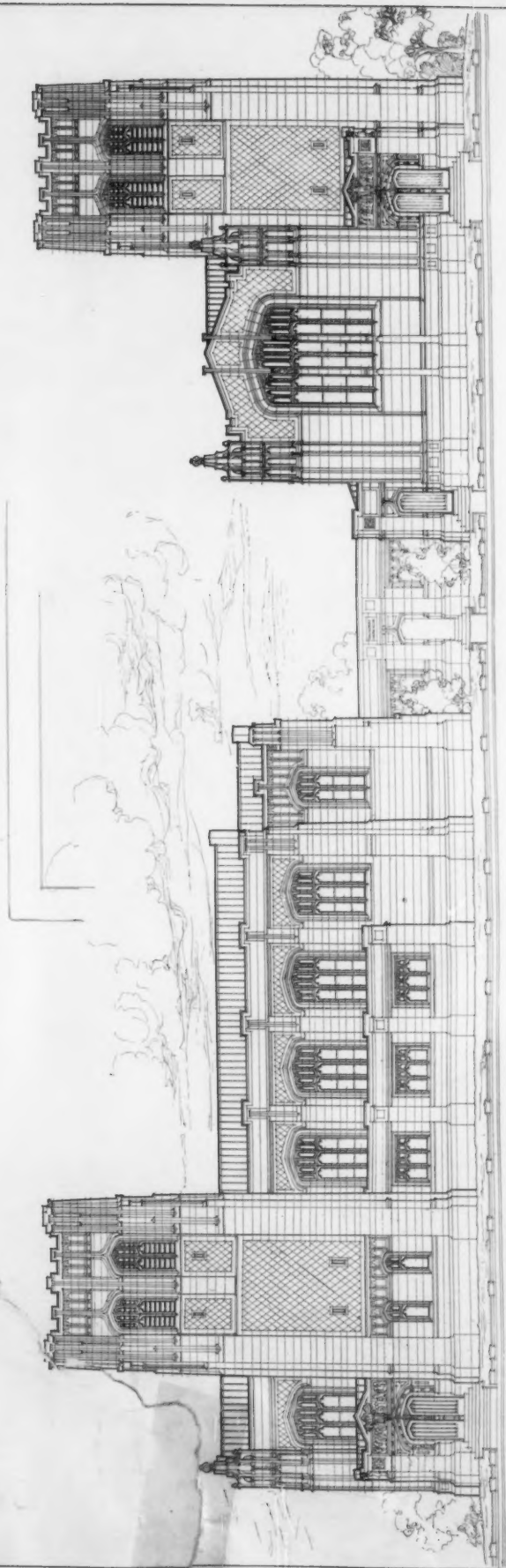
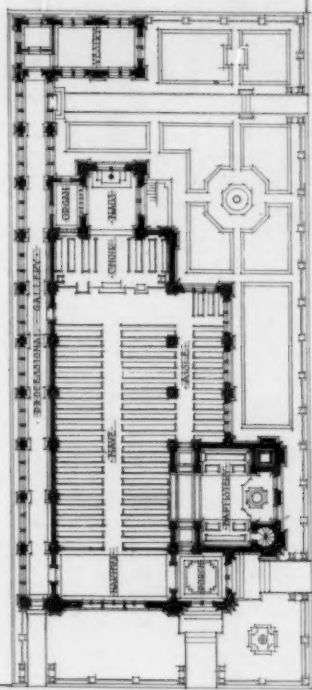
FIRST PRIZE DESIGN.
← SUBMITTED BY ADDISON B. LE BOUTILLIER, BOSTON, MASS.



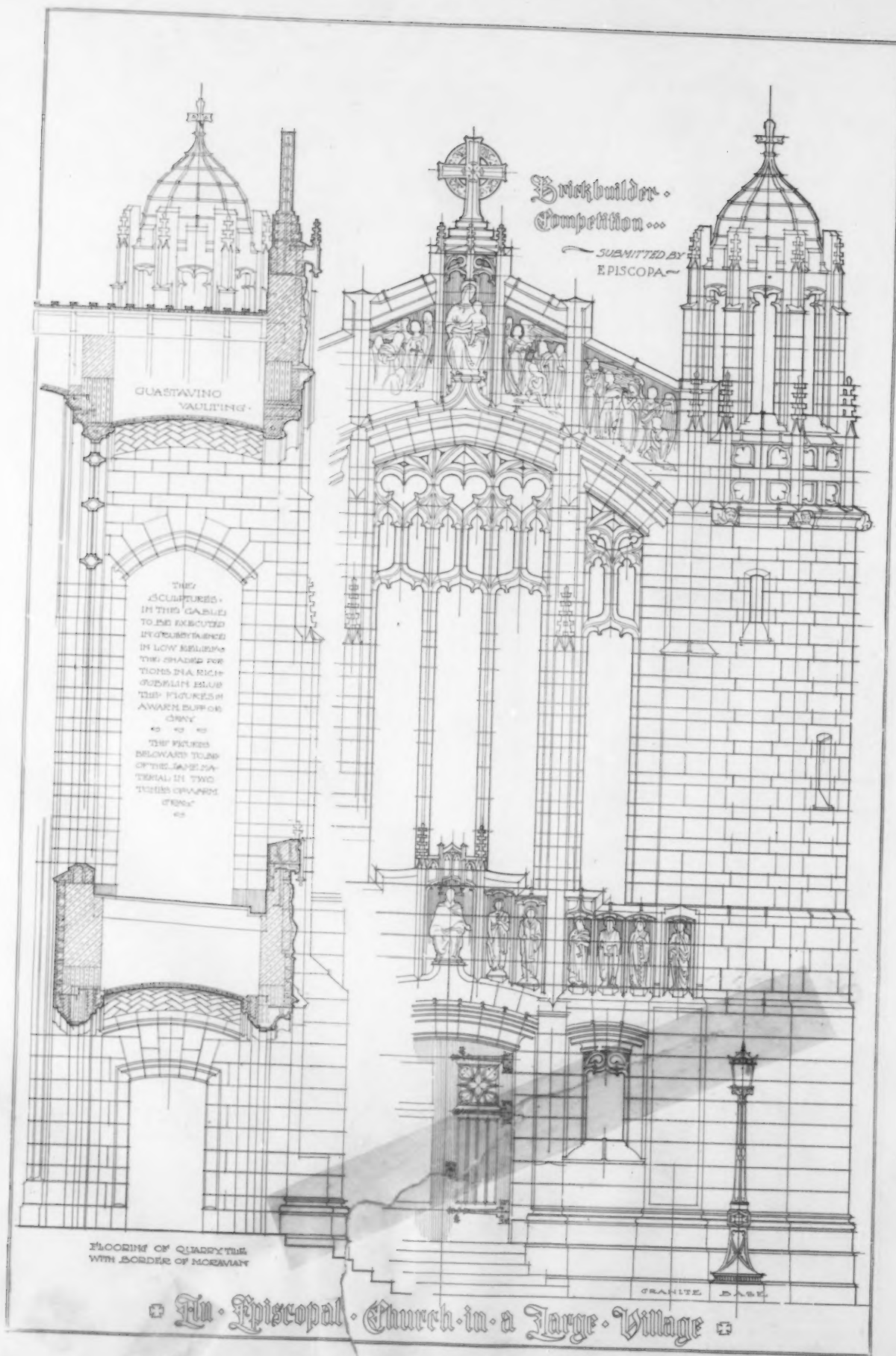
DETAIL BY AYMAR EMBURY, 2D.

*The Bricklayer Competition
for a Greek Gothic Church*

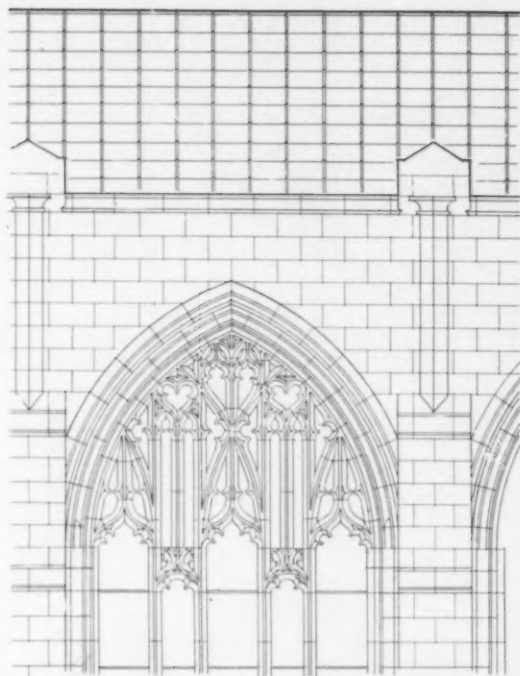
By Aymar Embury



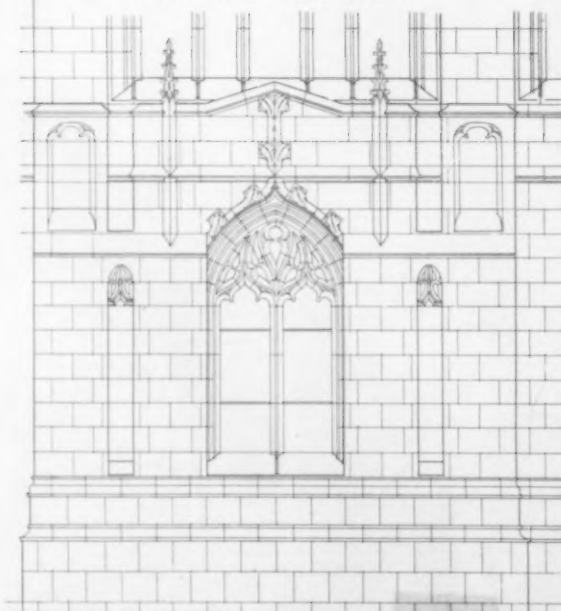
SECOND PRIZE DESIGN.
SUBMITTED BY AYMAR EMBURY, 20, ENGLEWOOD, N. J.



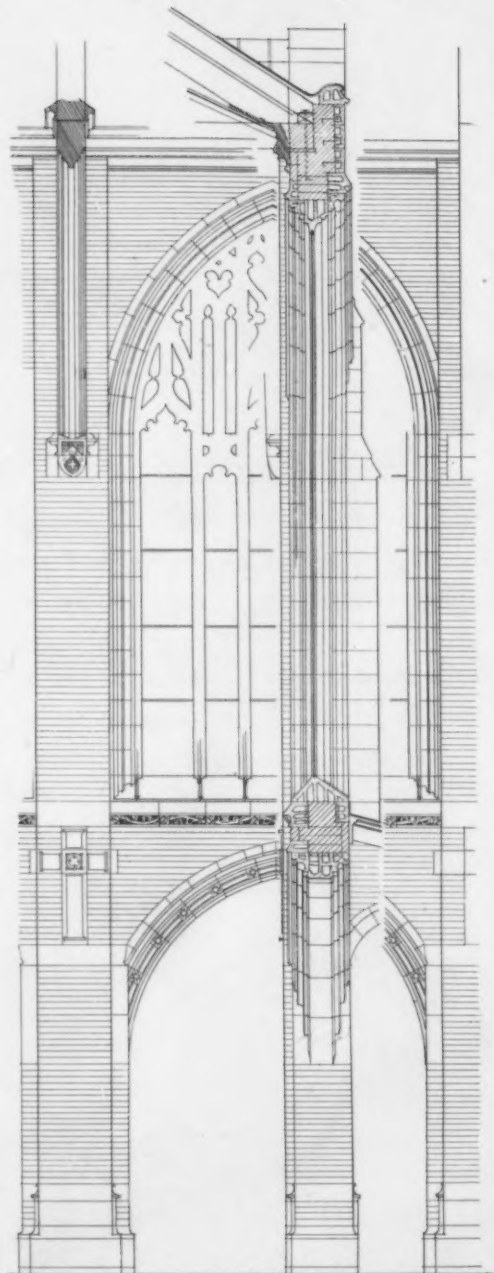
**THE BRICKBUILDER COMPETITION
FOR A LARGE VILLAGE CHURCH
IN MATERIALS OF CLAY** DECEMBER 1904



PLAN OF CLERESTORY WINDOW



EXTERIOR ELEVATION OF ONE BAY
SHOWING BAPTISTERY



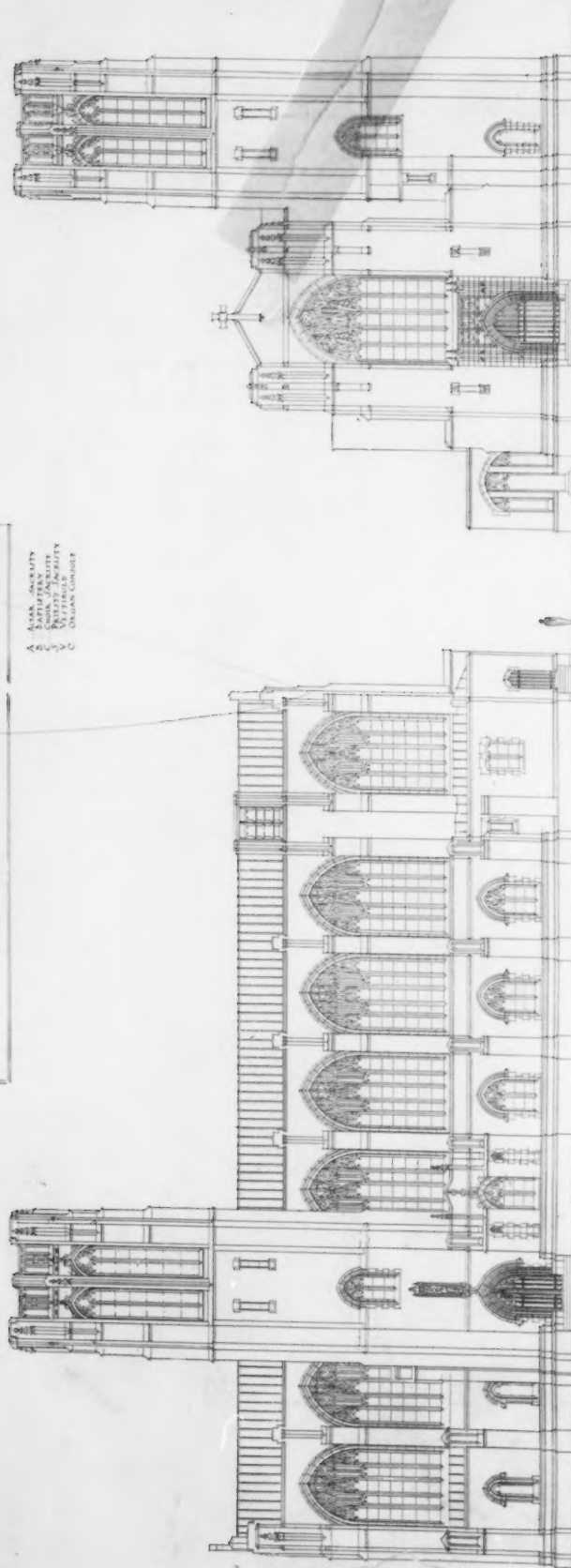
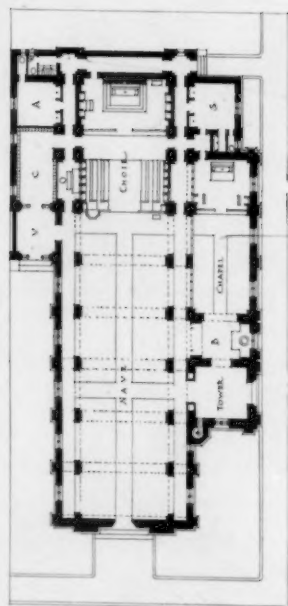
GRAY BRICK, WITH COLORED AND GLAZED TERRA COTTA

INTERIOR ELEVATION OF ONE BAY



DETAIL BY GORDON ALLEN AND FRANK E. CLEVELAND.

**THE BRICKBUILDER COMPETITION
FOR A LARGE VILLAGE CHURCH
IN MATERIALS OF CLAY** 1843-1844

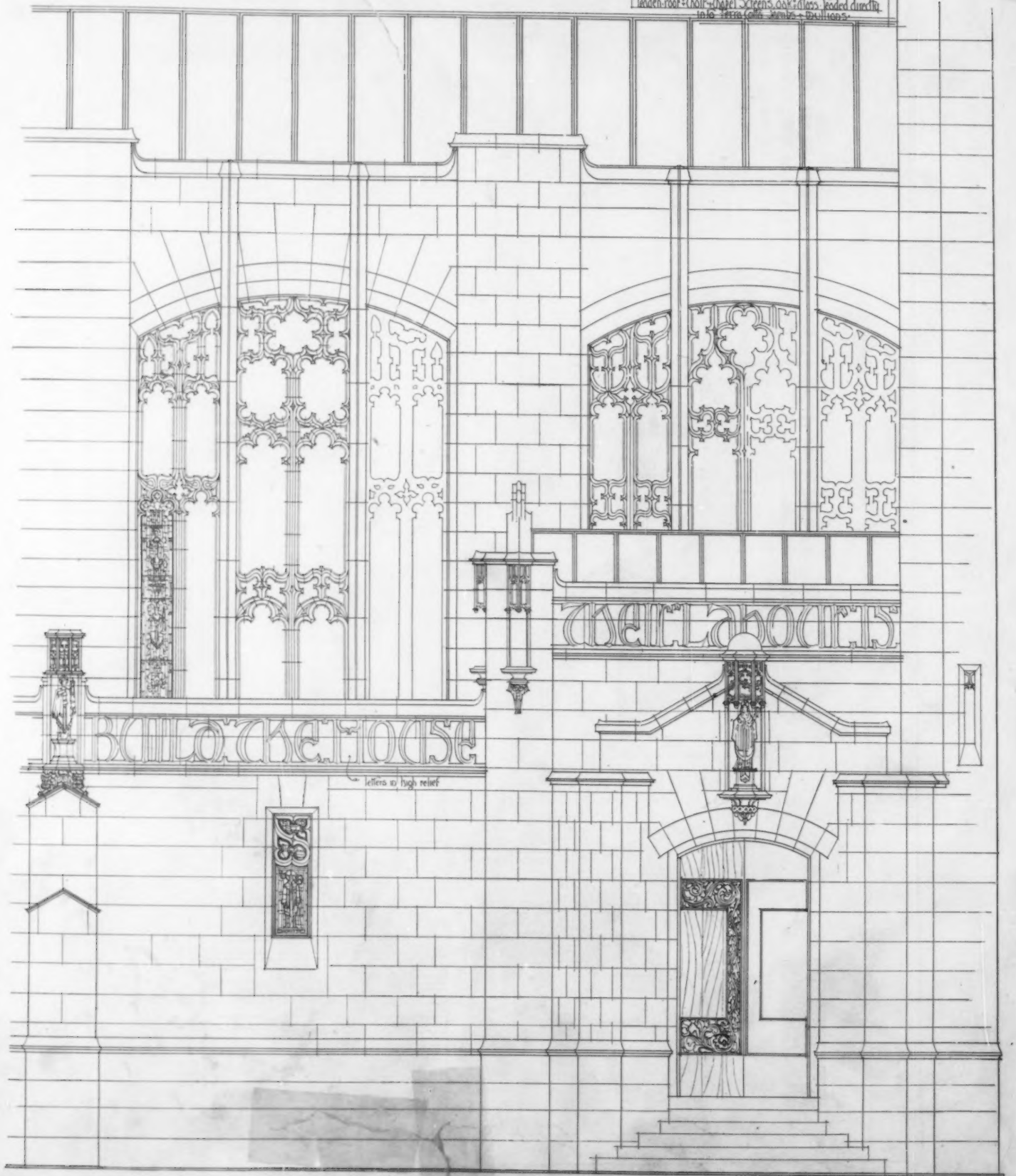


FIRST MENTION.
SUBMITTED BY GORDON ALLEN AND FRANK F. CLEVELAND, BOSTON, MASS.

Village Church of Terra Colla.
1/2 in. details

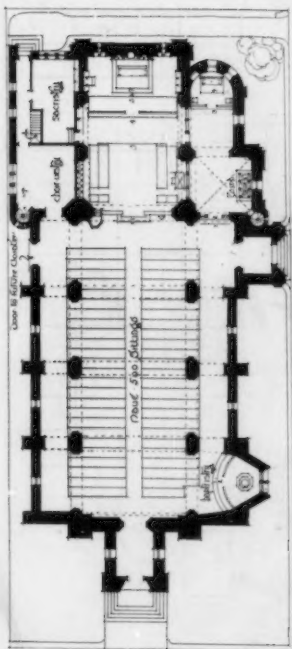


Dole, Maine building. Exterior - Interior to be of Terra
Colla. Tile floor - roof (overlaid) covered by exterior
leadon roof - choir - chapel screens oak & glass. leaded directly
into terra colla - screens - vaultings.

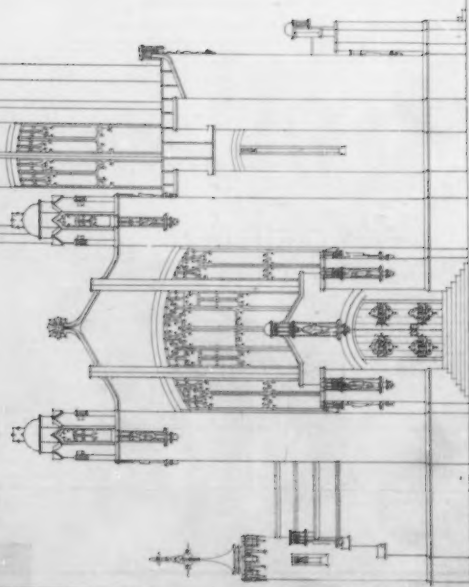


DETAIL BY M. H. SMITH.

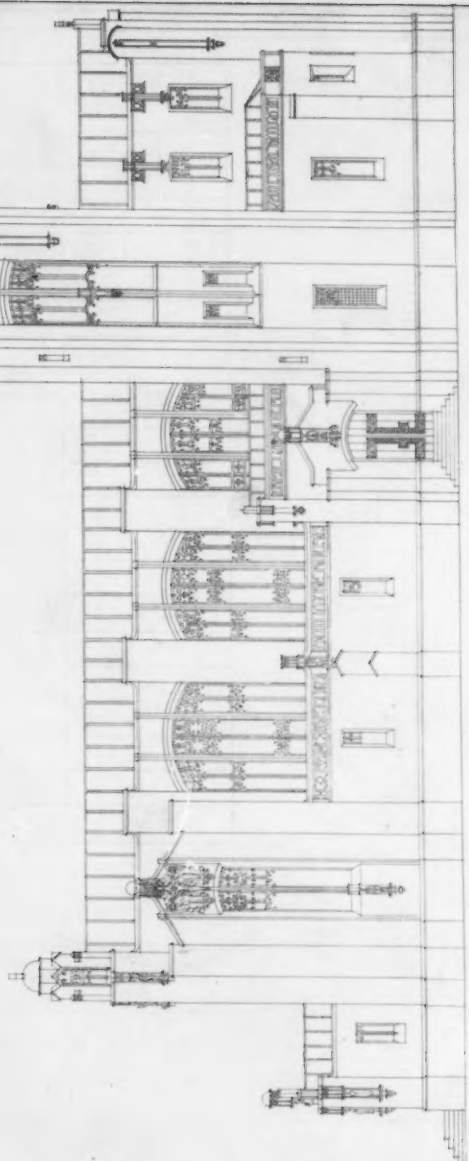
Trinity Church, to be
 built in New College
 design submitted by



Plan of the church body

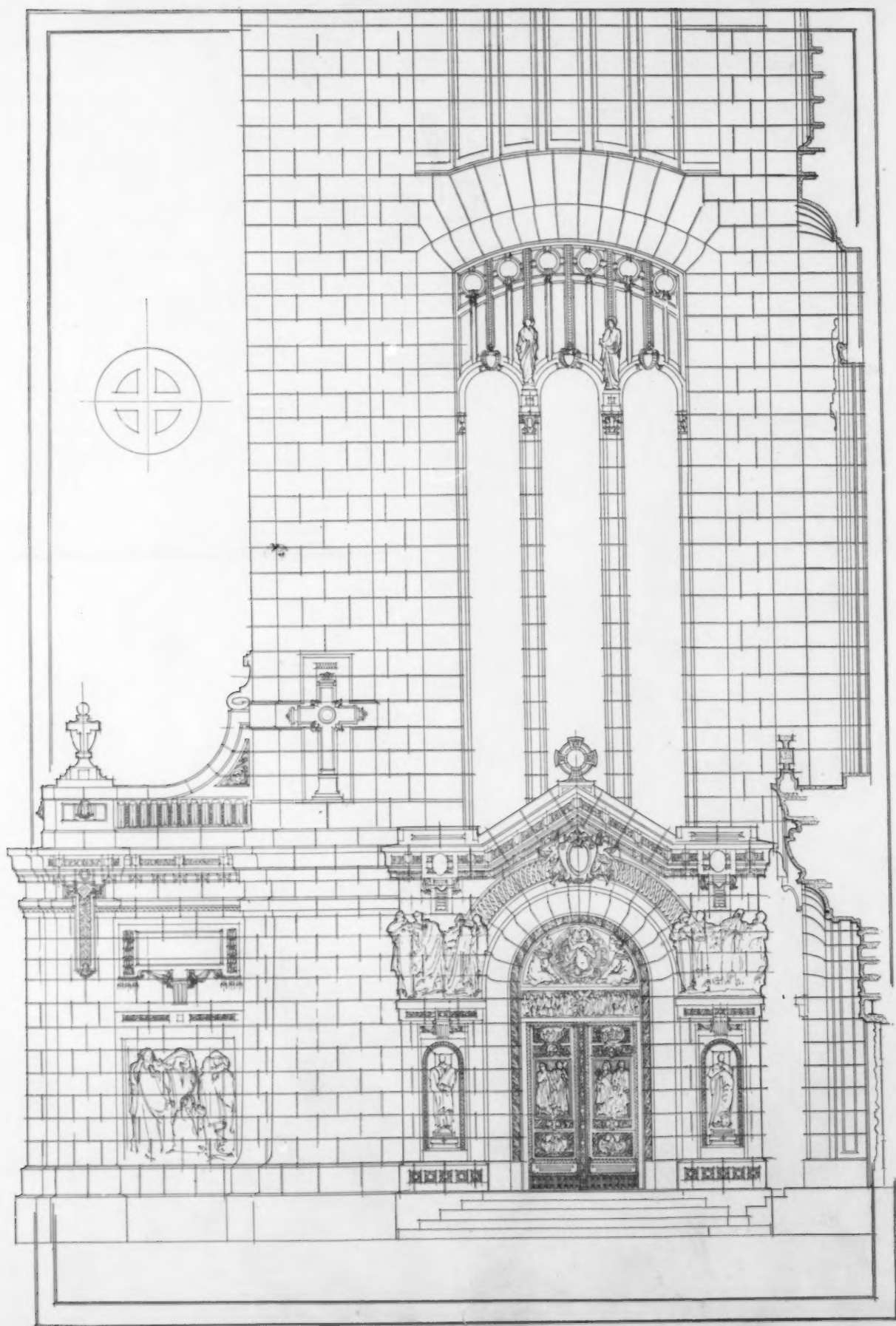


WEST ELEVATION

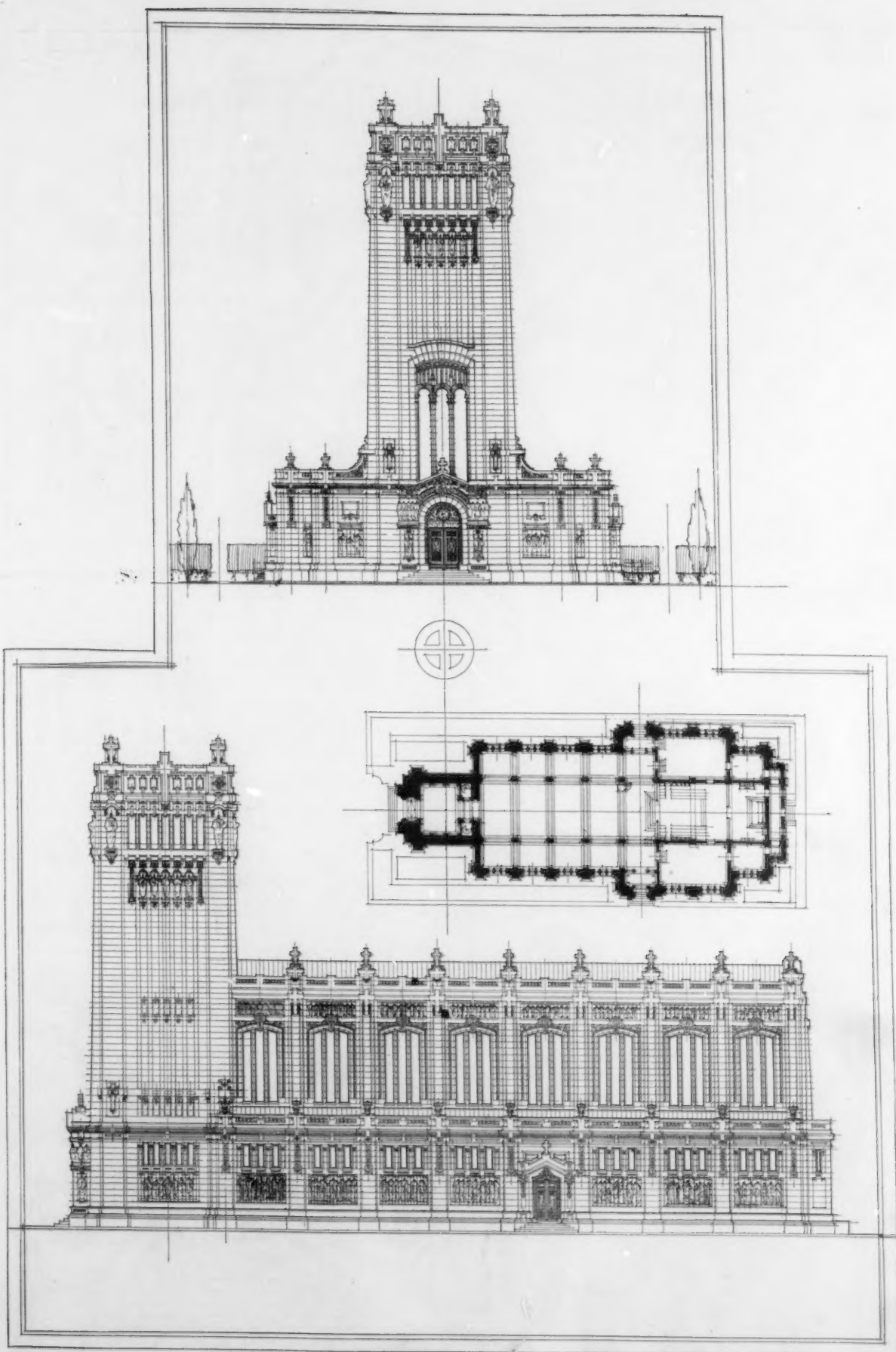


EAST ELEVATION

SECOND MENTION.
 SUBMITTED BY M. H. SMITH, BOSTON, MASS.

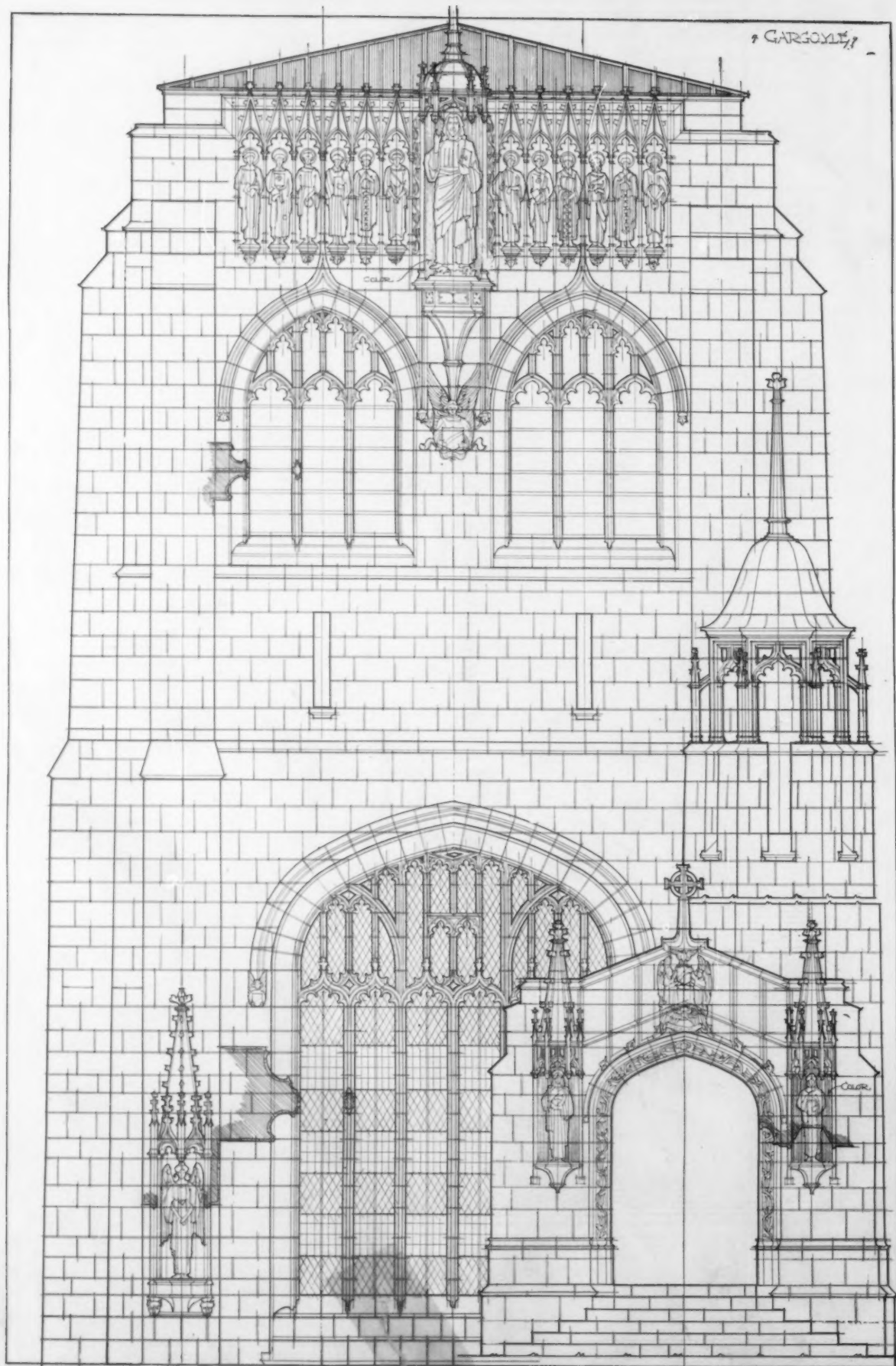


DETAIL BY HAROLD W. HATHAWAY AND WILLIAM S. WELLS.

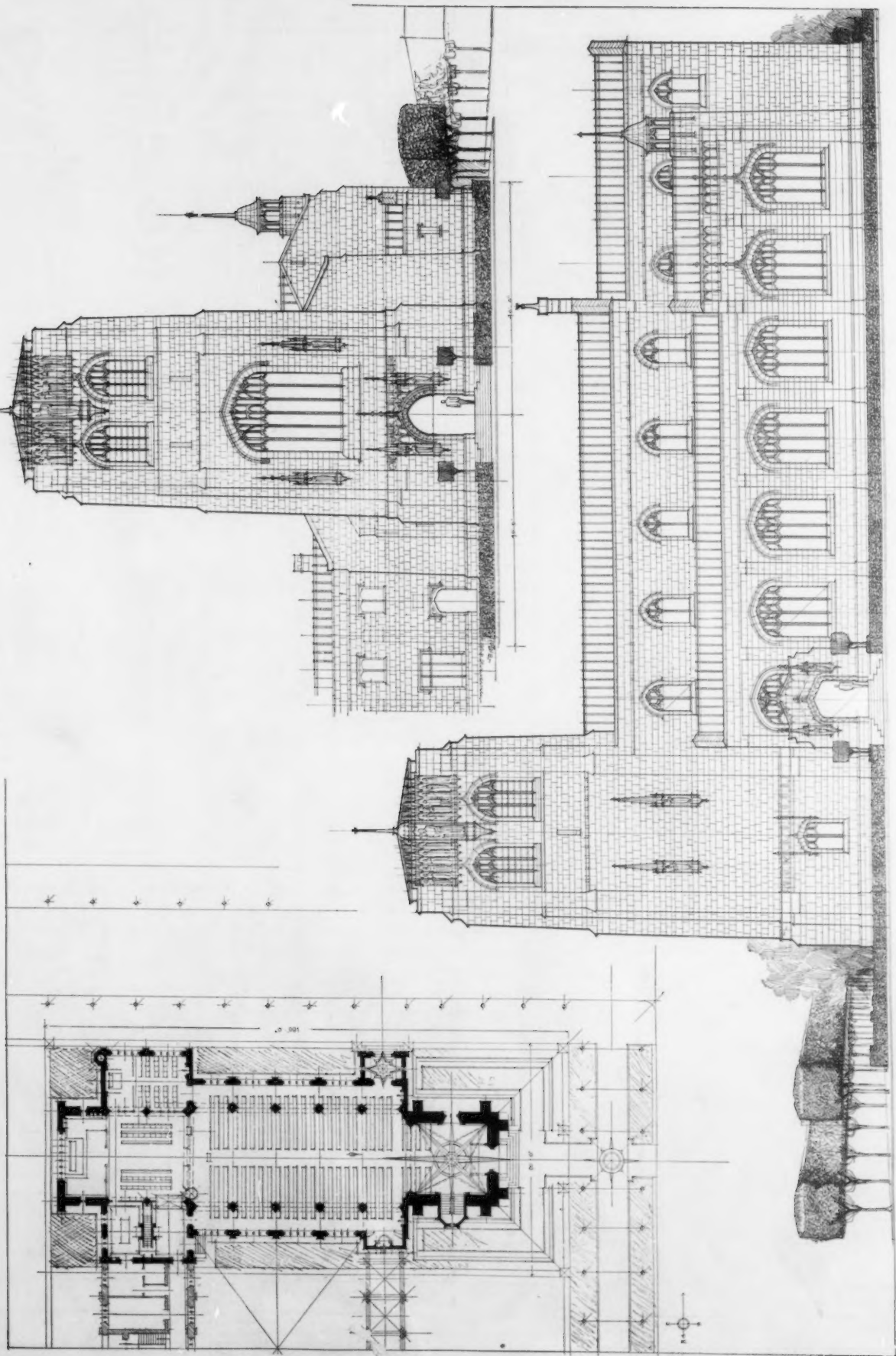


THIRD MENTION.

SUBMITTED BY HAROLD W. HATHAWAY AND WILLIAM S. WELLS, BOSTON, MASS.

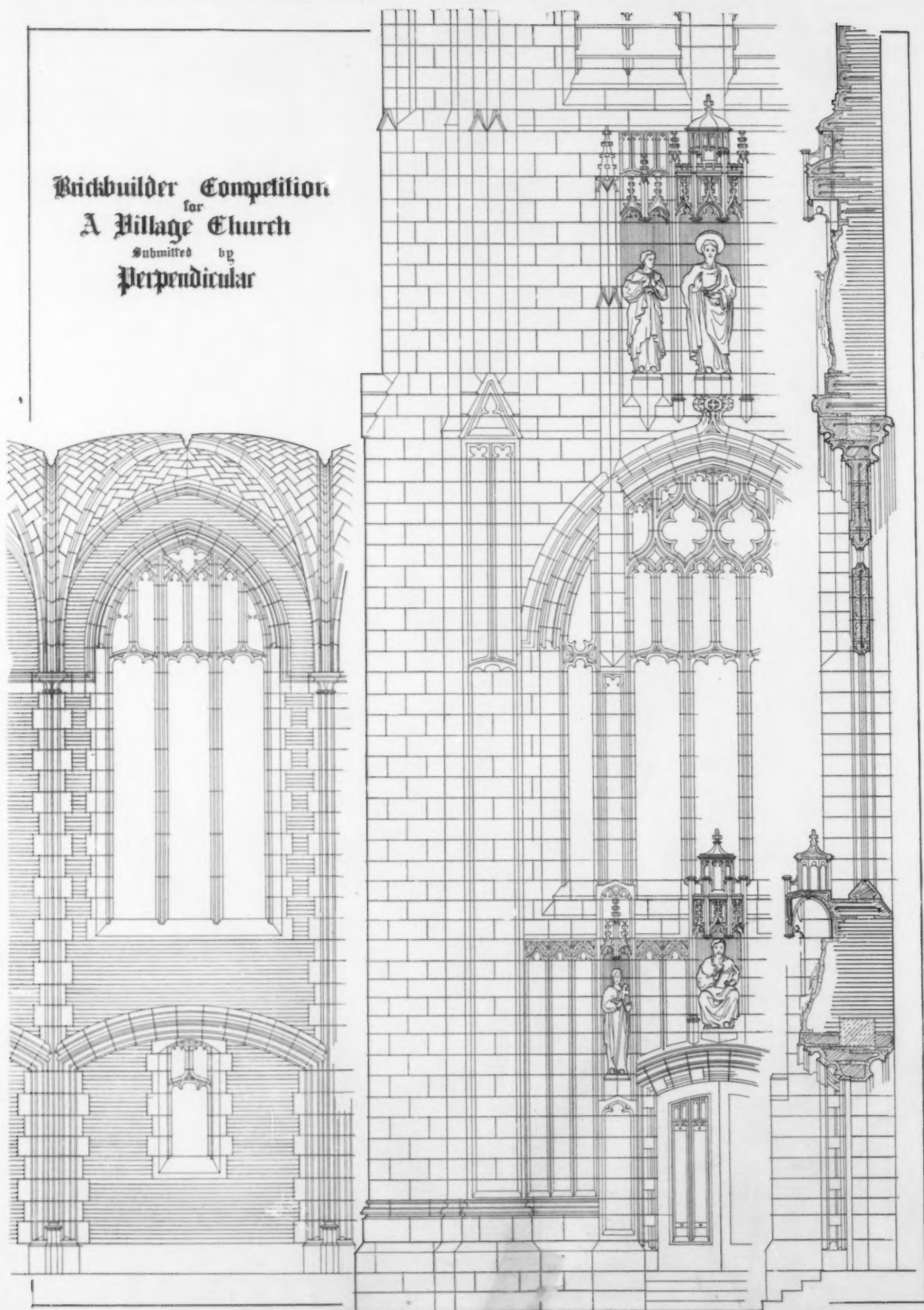


DETAIL BY WILLIAM L. WELTON.

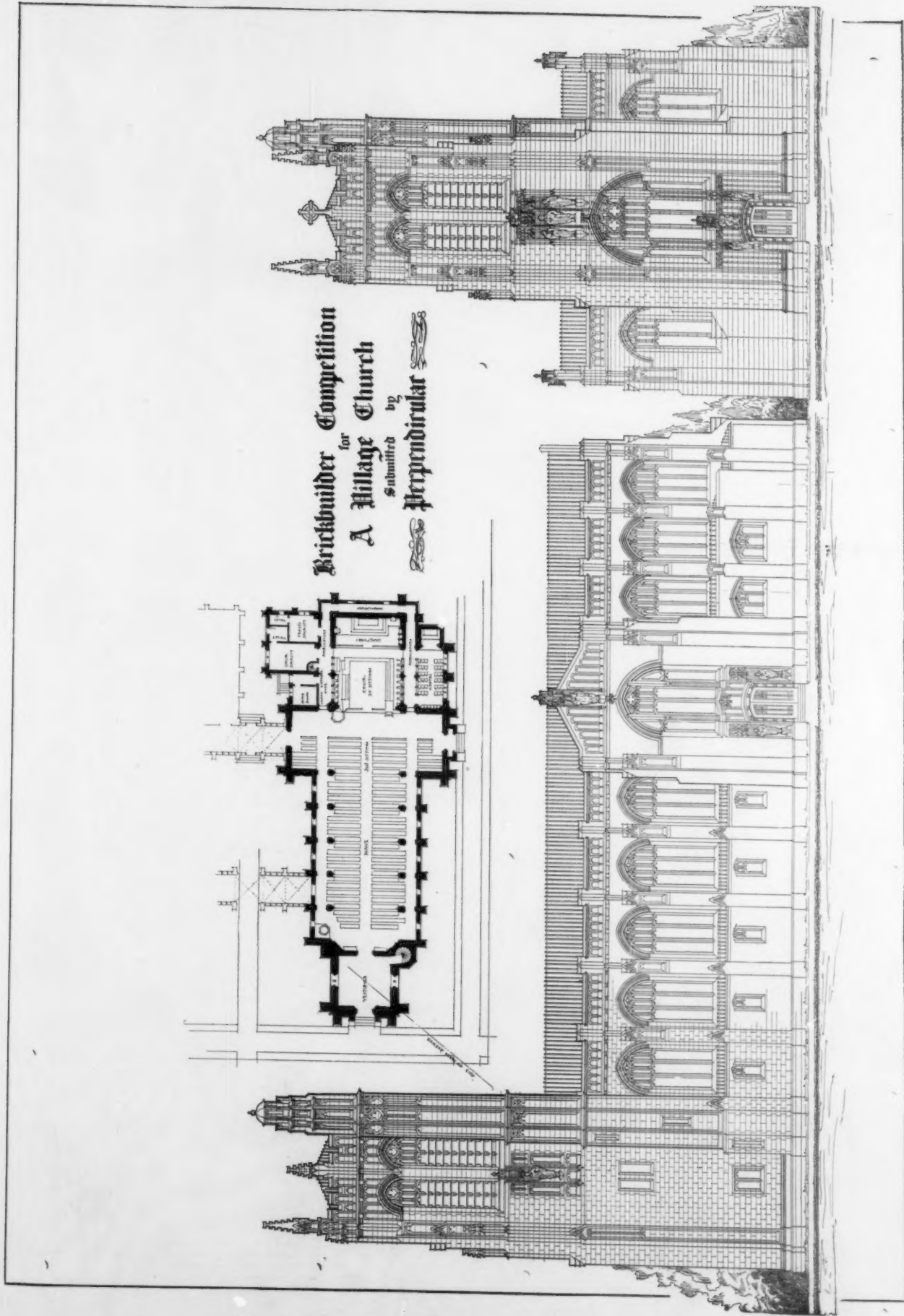


MENTION.
SUBMITTED BY WILLIAM L. WELTON, NEW YORK CITY.

Brickbuilder Competition
 for
 A Village Church
 Submitted by
 Perpendicular

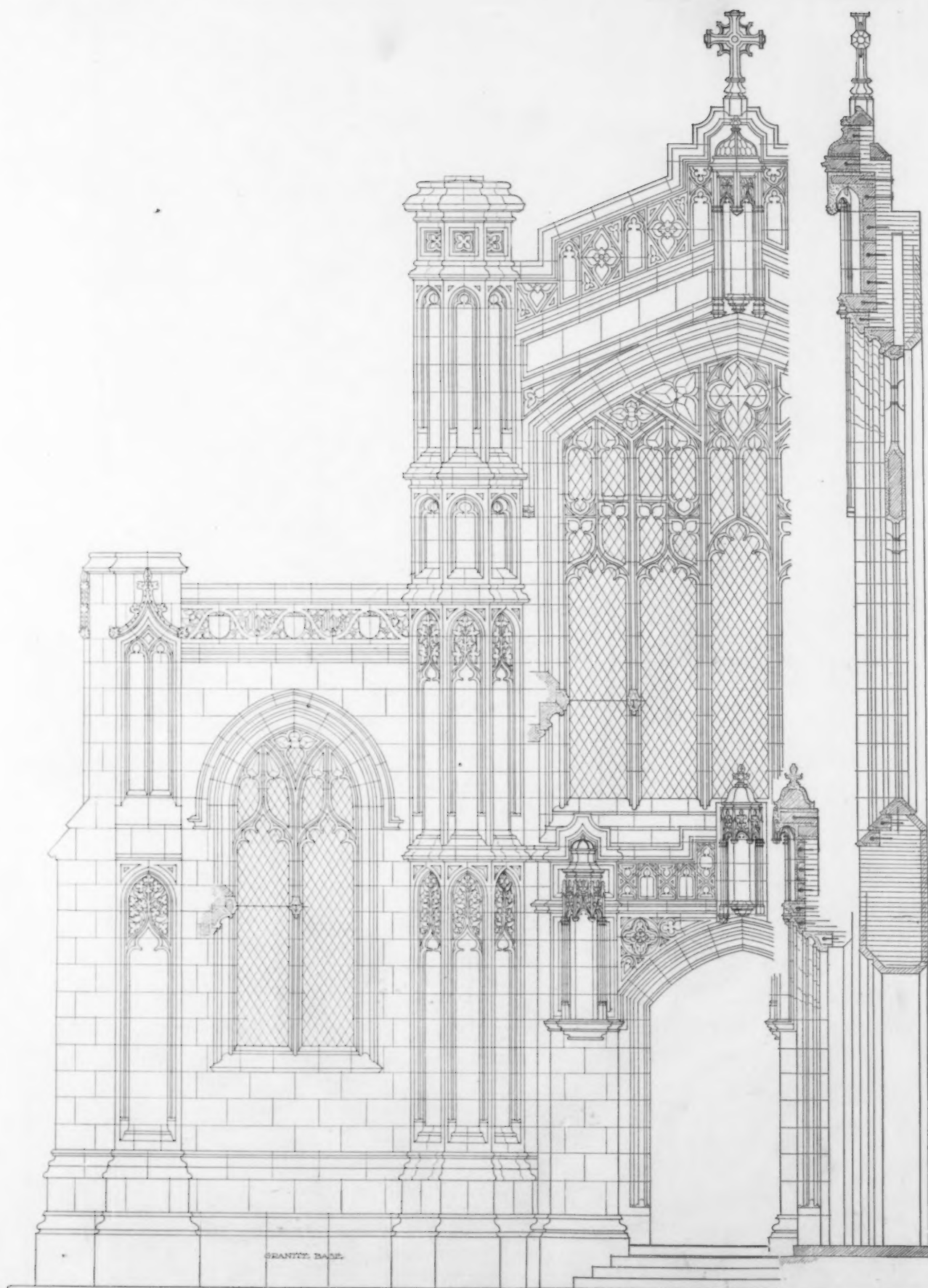


DETAIL BY RUSSELL EASON HART.

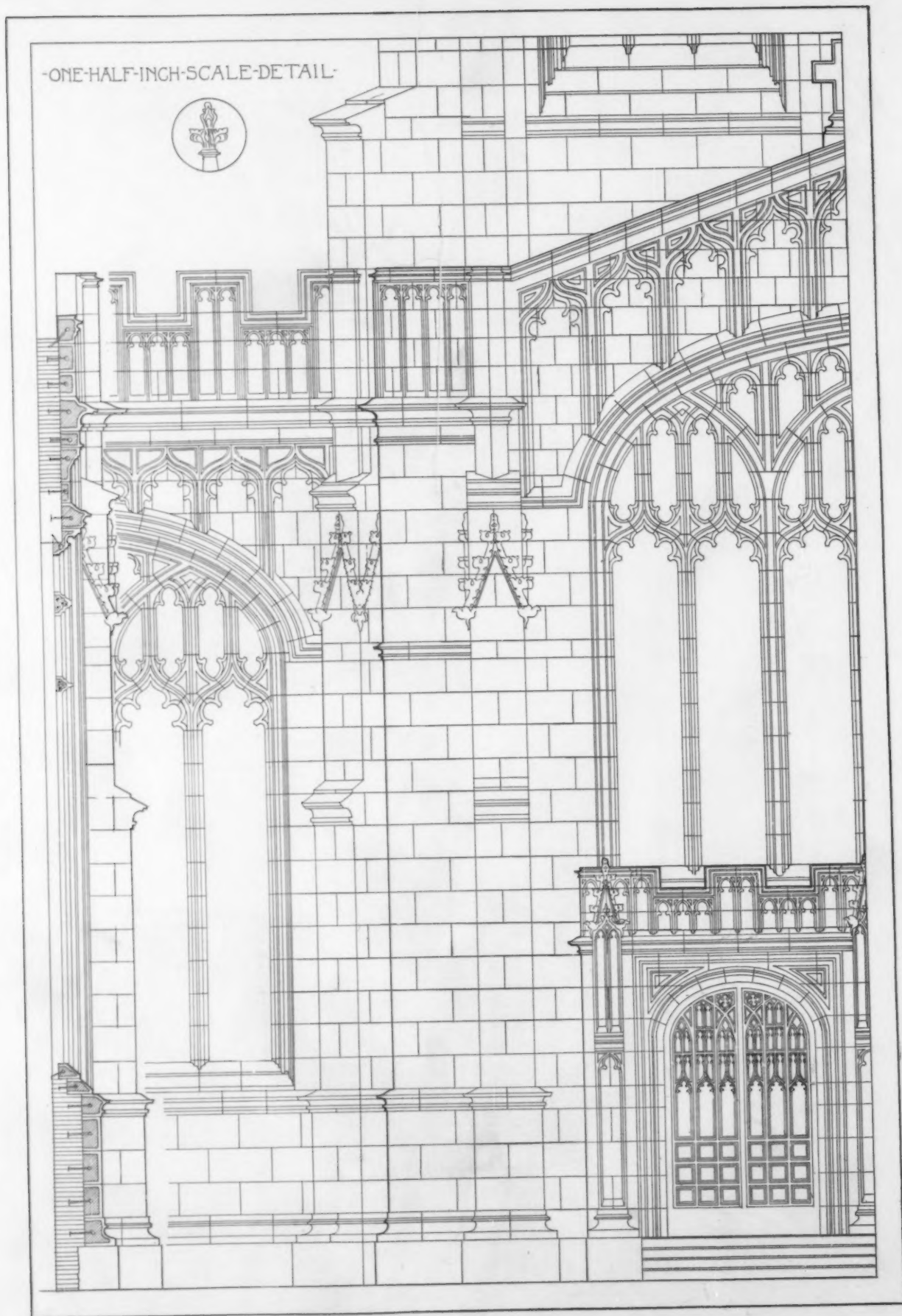


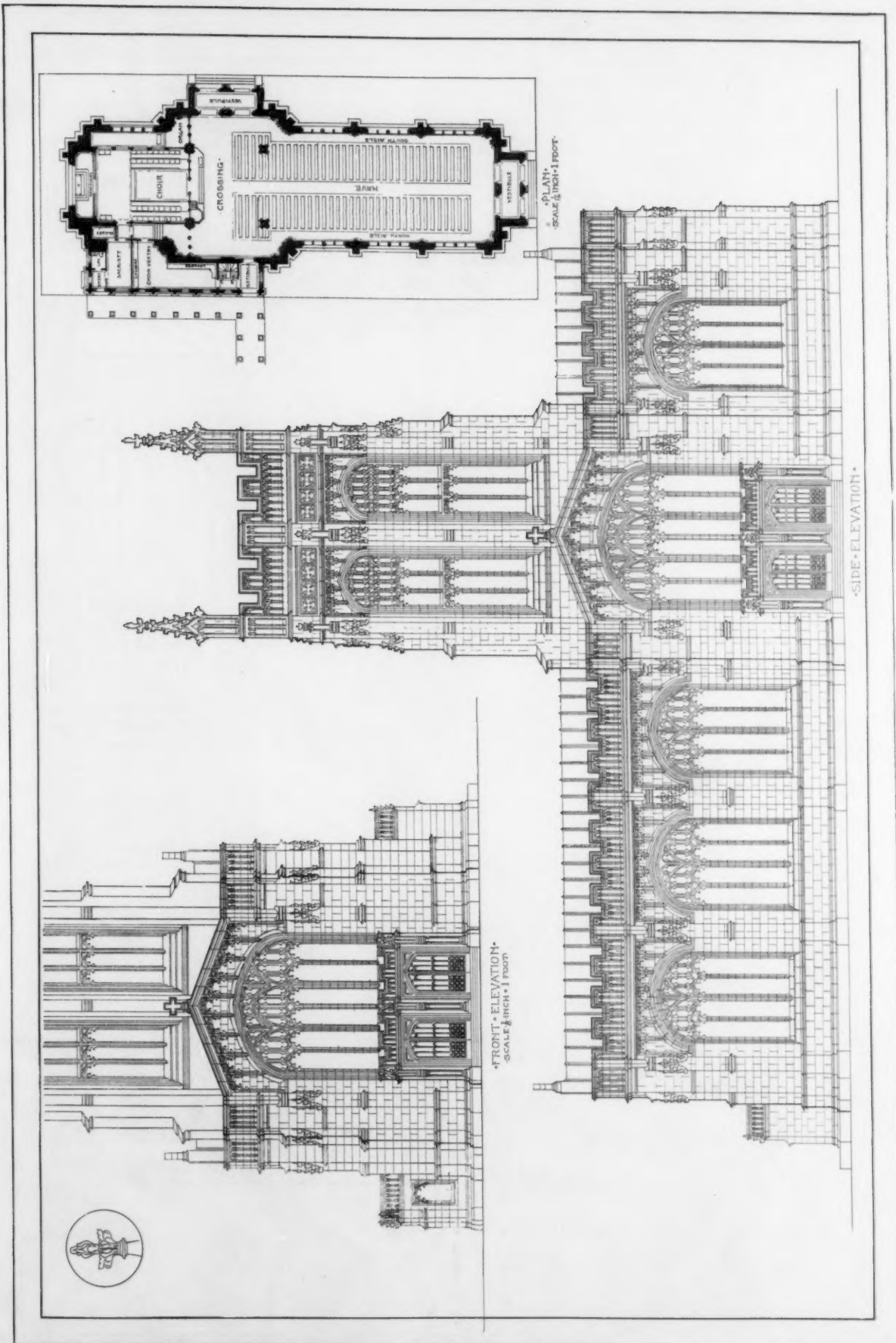
Brickbuilder for Competition
 A Village Church
 Submitted by
 Perpendicular

MENTION.
 SUBMITTED BY RUSSELL EASON HART, NEW YORK CITY.

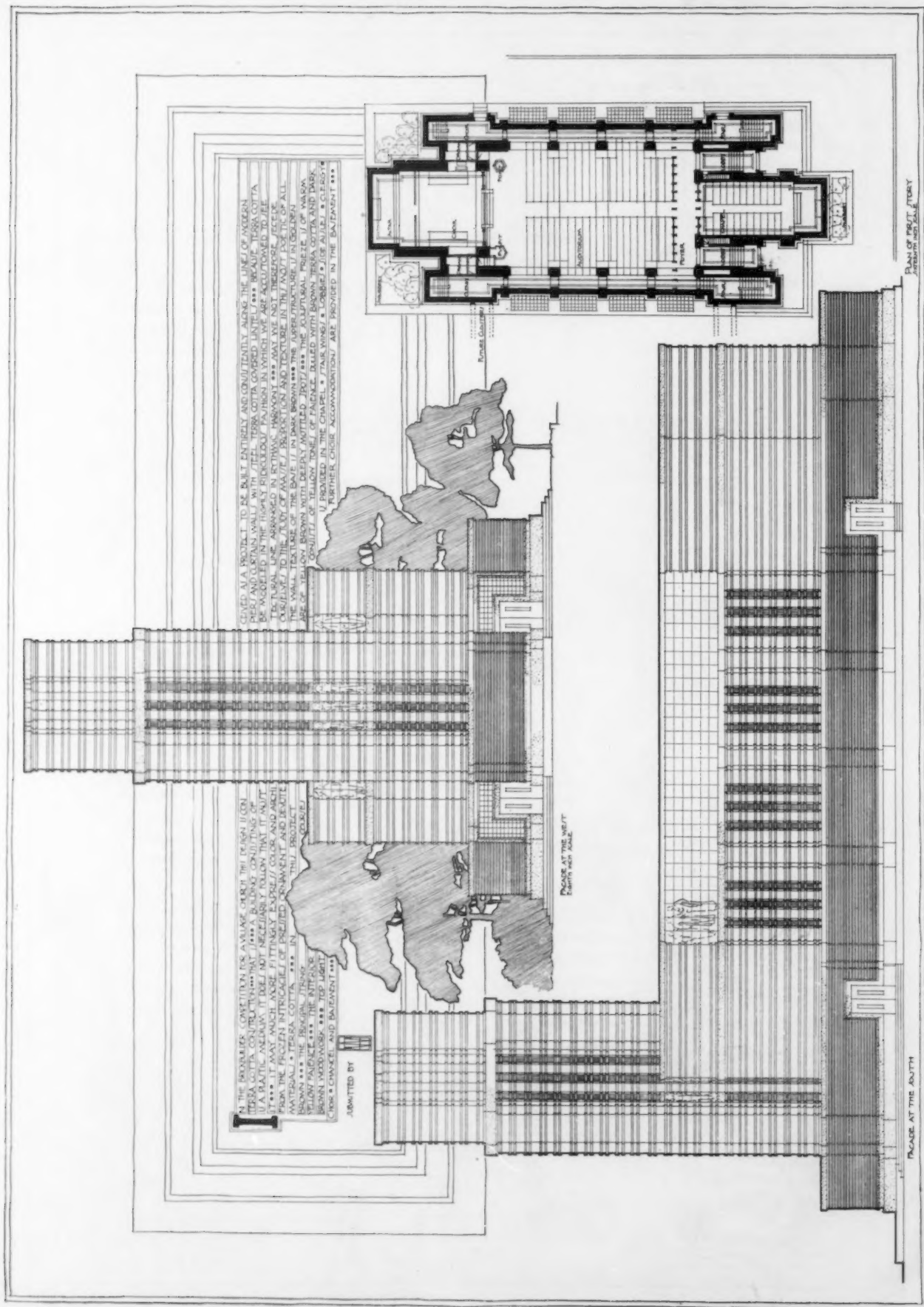


DETAIL BY AUGUST SIEDER, JR.

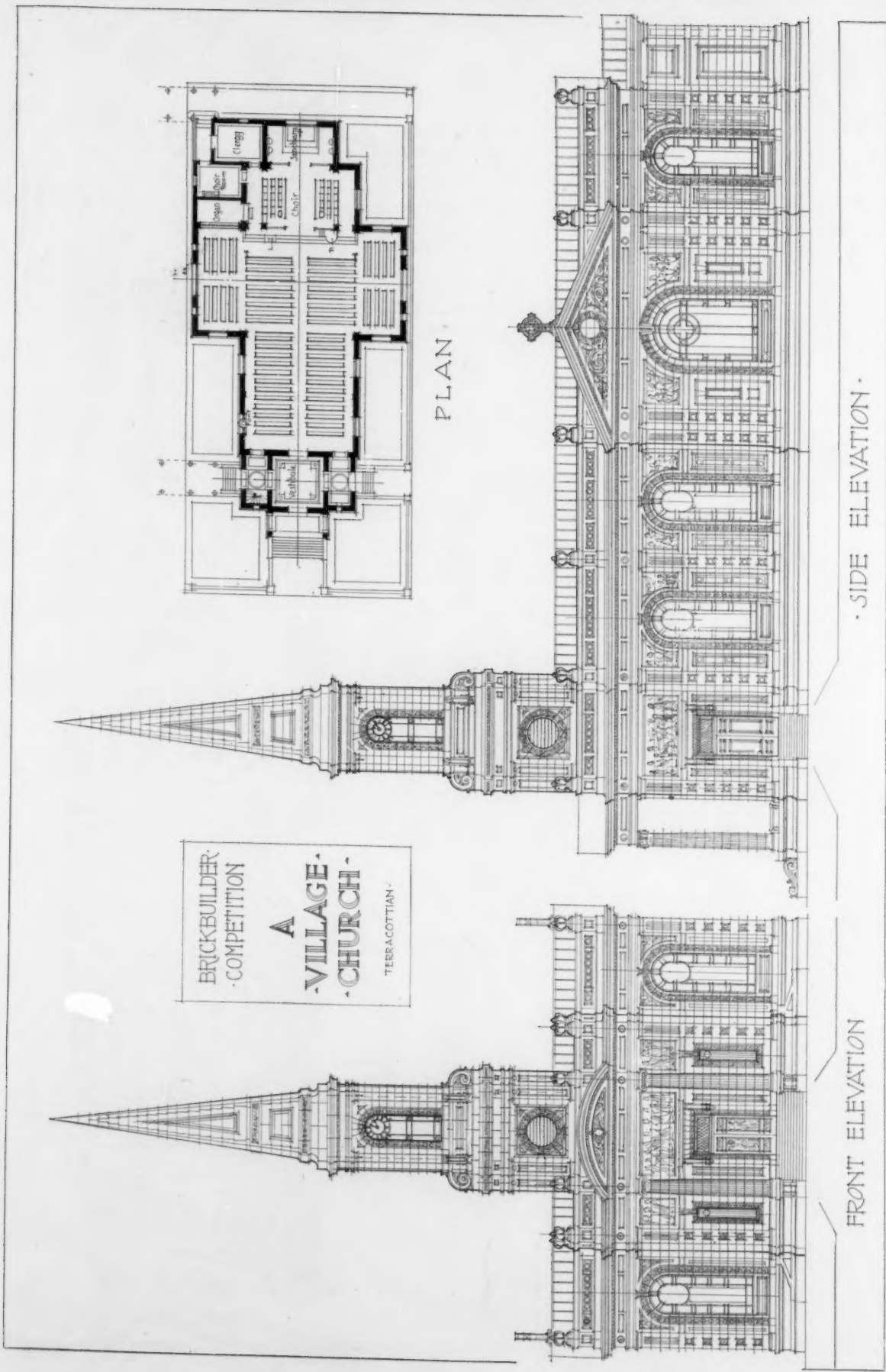




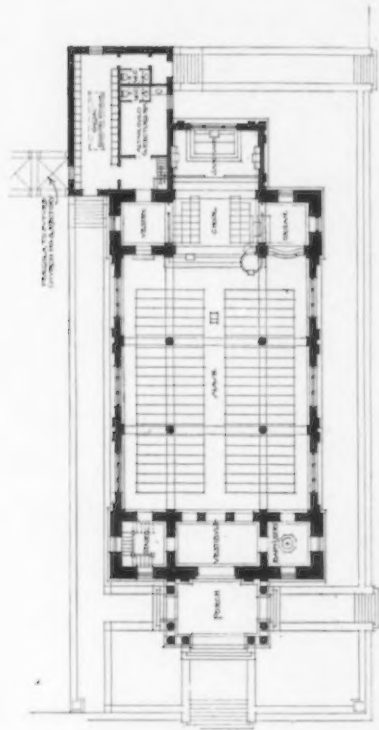
MENTION.
SUBMITTED BY ROBERT FOCKENS, BOSTON, MASS.



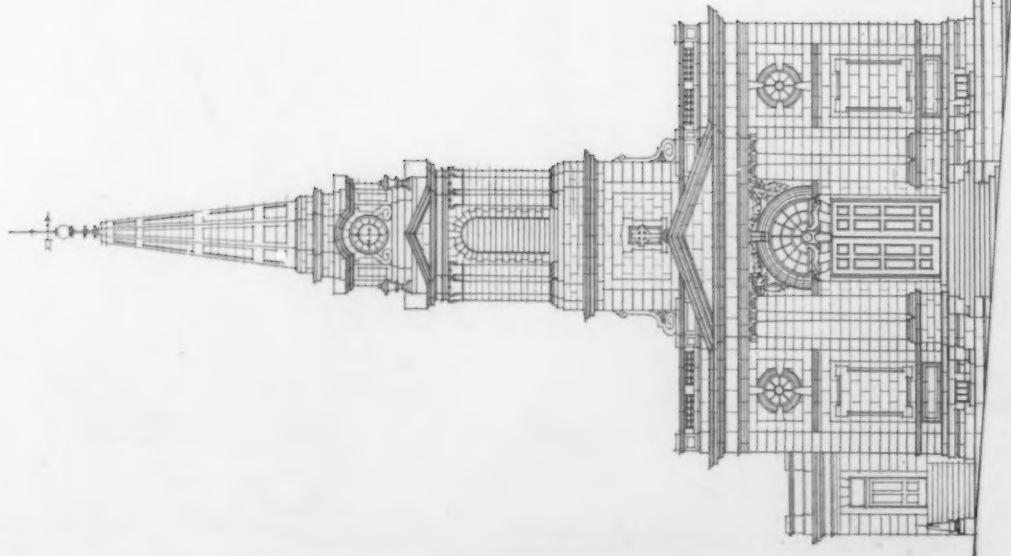
SUBMITTED BY CHARLES E. WHITE, JR., OAK PARK, ILL.



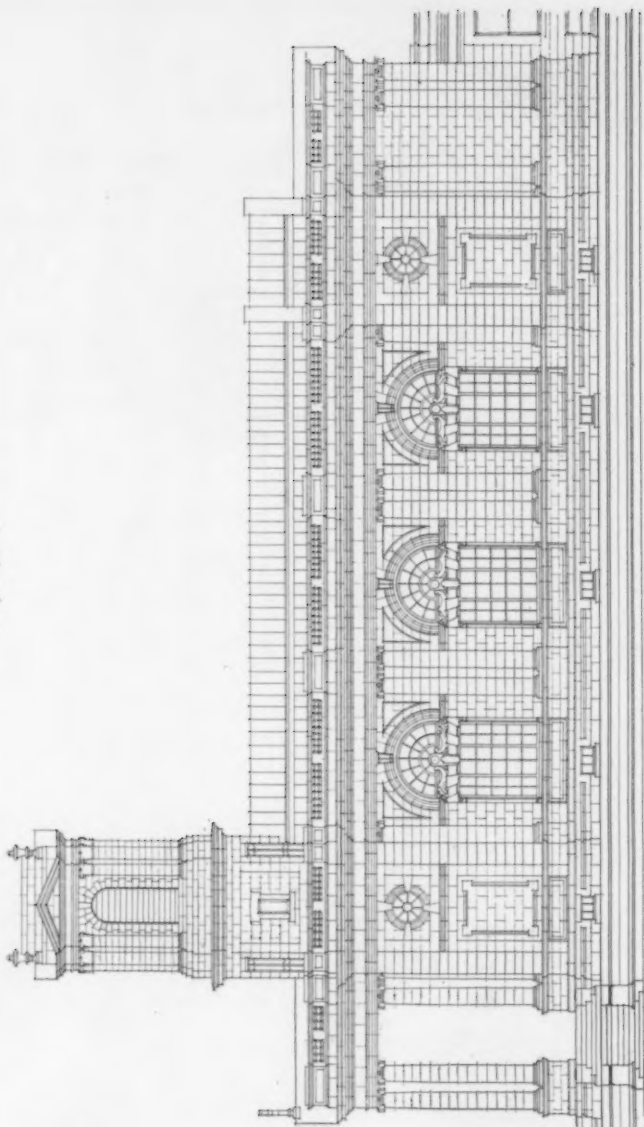
SUBMITTED BY ROBERT M. FARRINGTON, NEW YORK CITY.



— PLAN —



— FRONT ELEVATION —

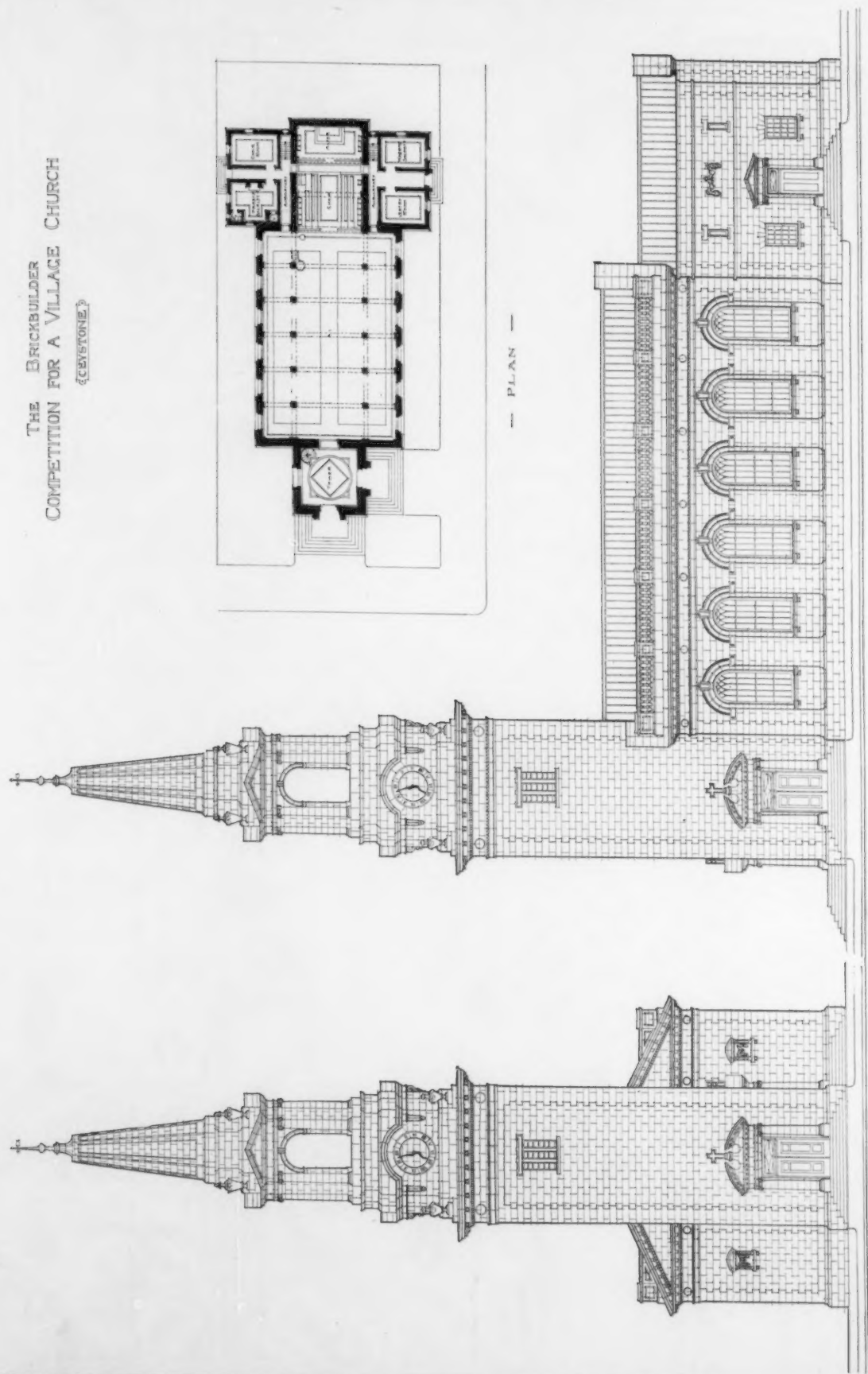


— SIDE ELEVATION —

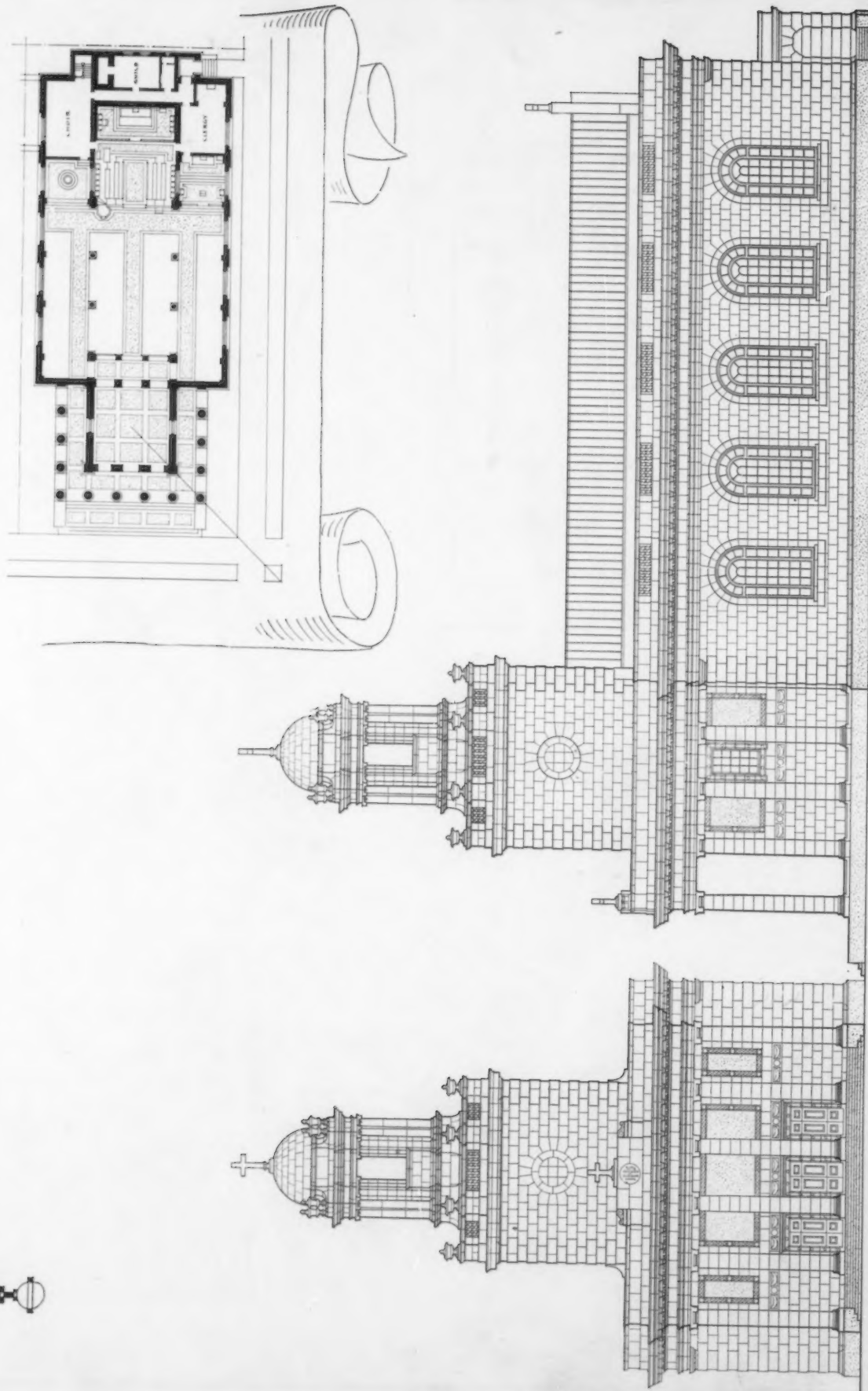
GEORGIAN

SUBMITTED BY GEORGE C. WINTERS, NEW YORK CITY.

THE BRICKBUILDER
COMPETITION FOR A VILLAGE CHURCH
(CRYSTONE)

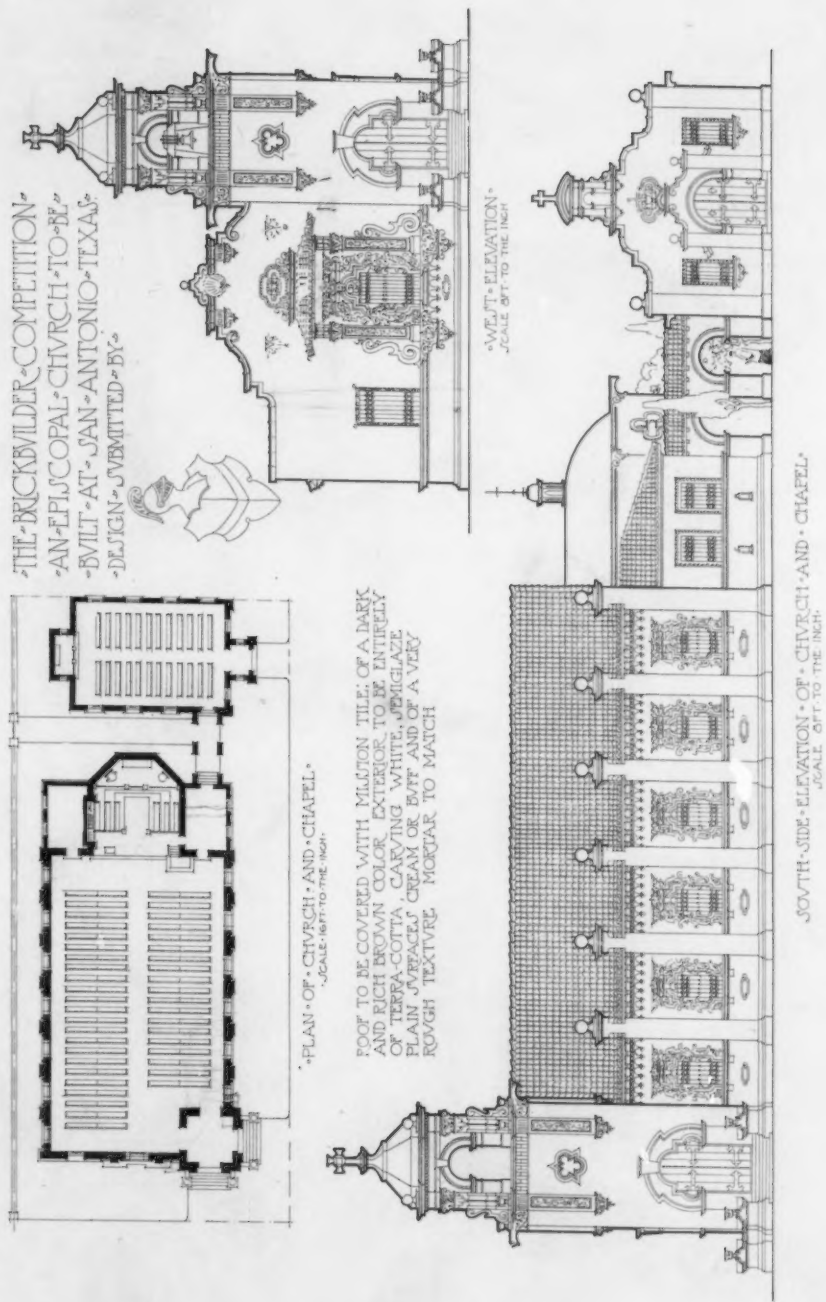


SUBMITTED BY ROBERT M. WRIGHT, CLEVELAND, OHIO.

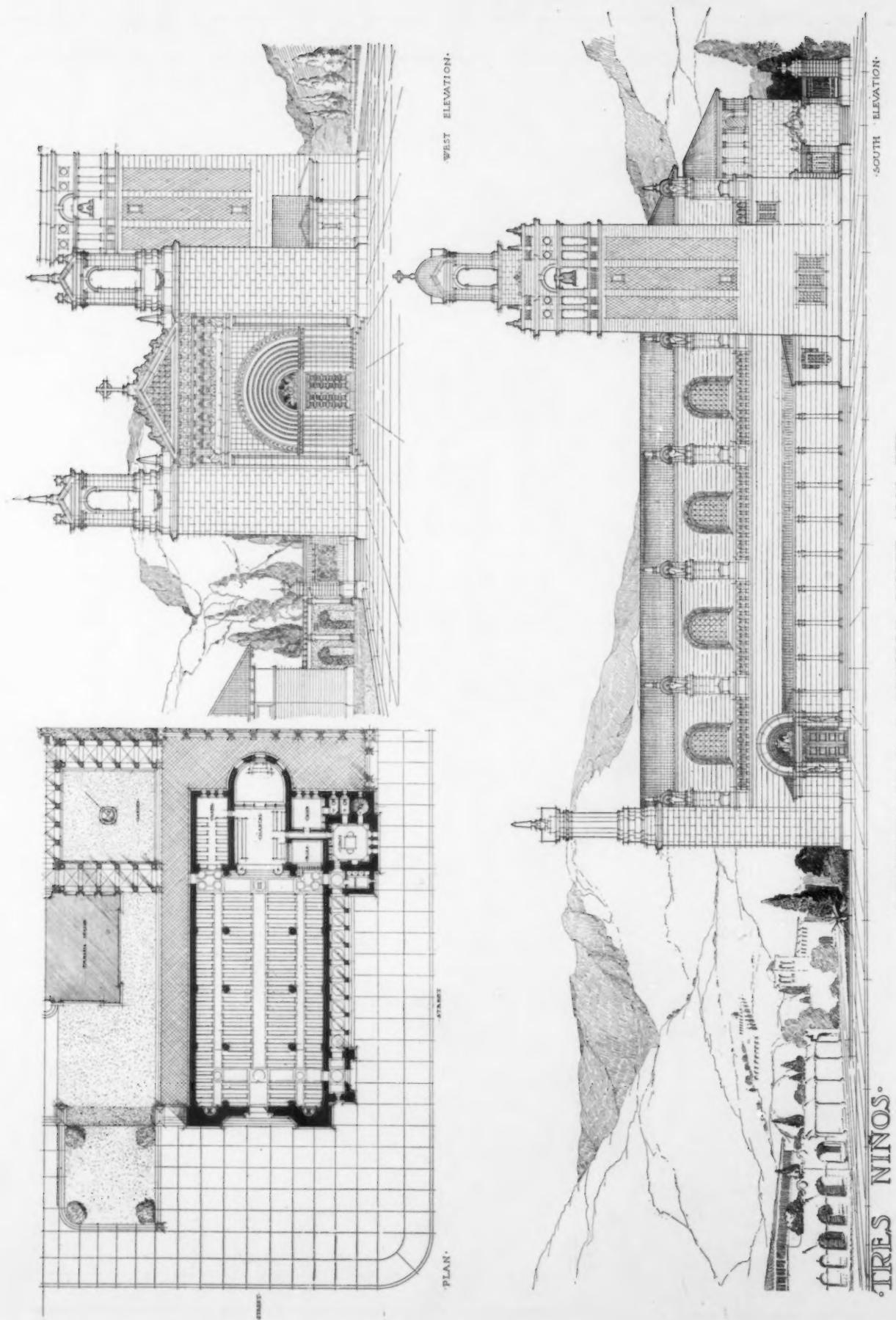


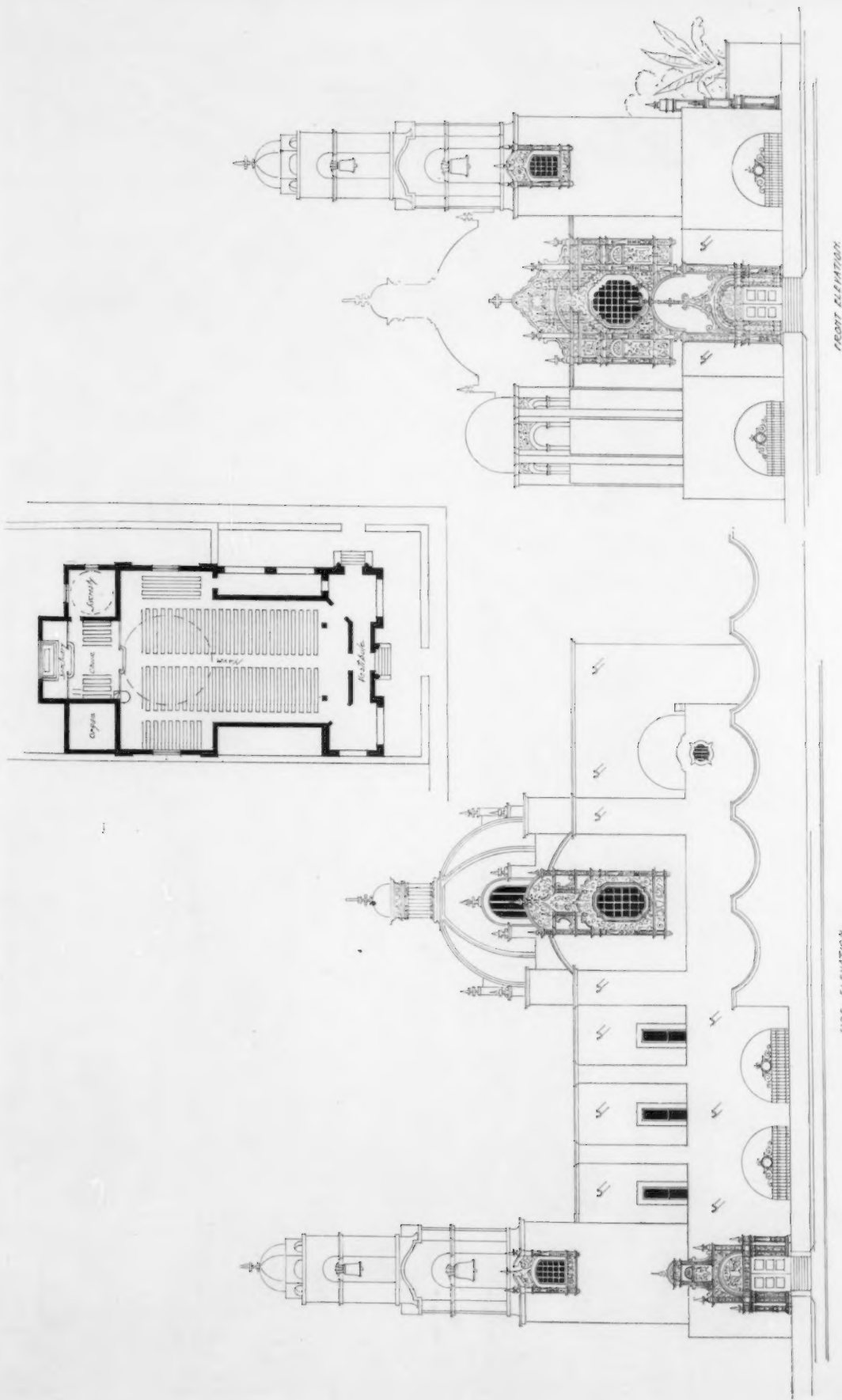
THE BRICKBUILDER COMPETITION DECEMBER 1904 A VILLAGE EPISCOPAL CHURCH

SUBMITTED BY GEORGE GUPPY, BOSTON, MASS.



SUBMITTED BY CARL C. ADAMS, NEW ORLEANS, LA.

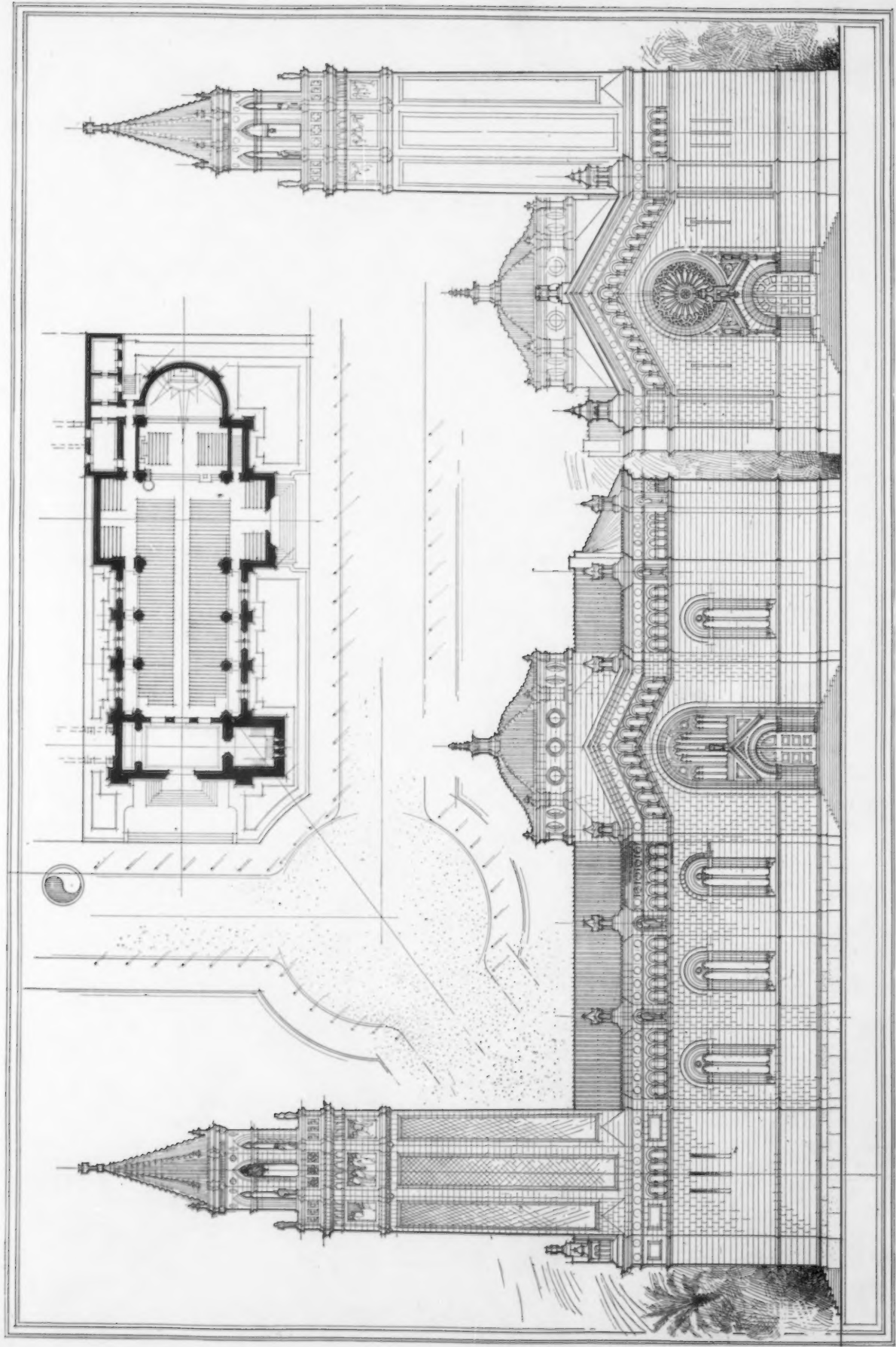




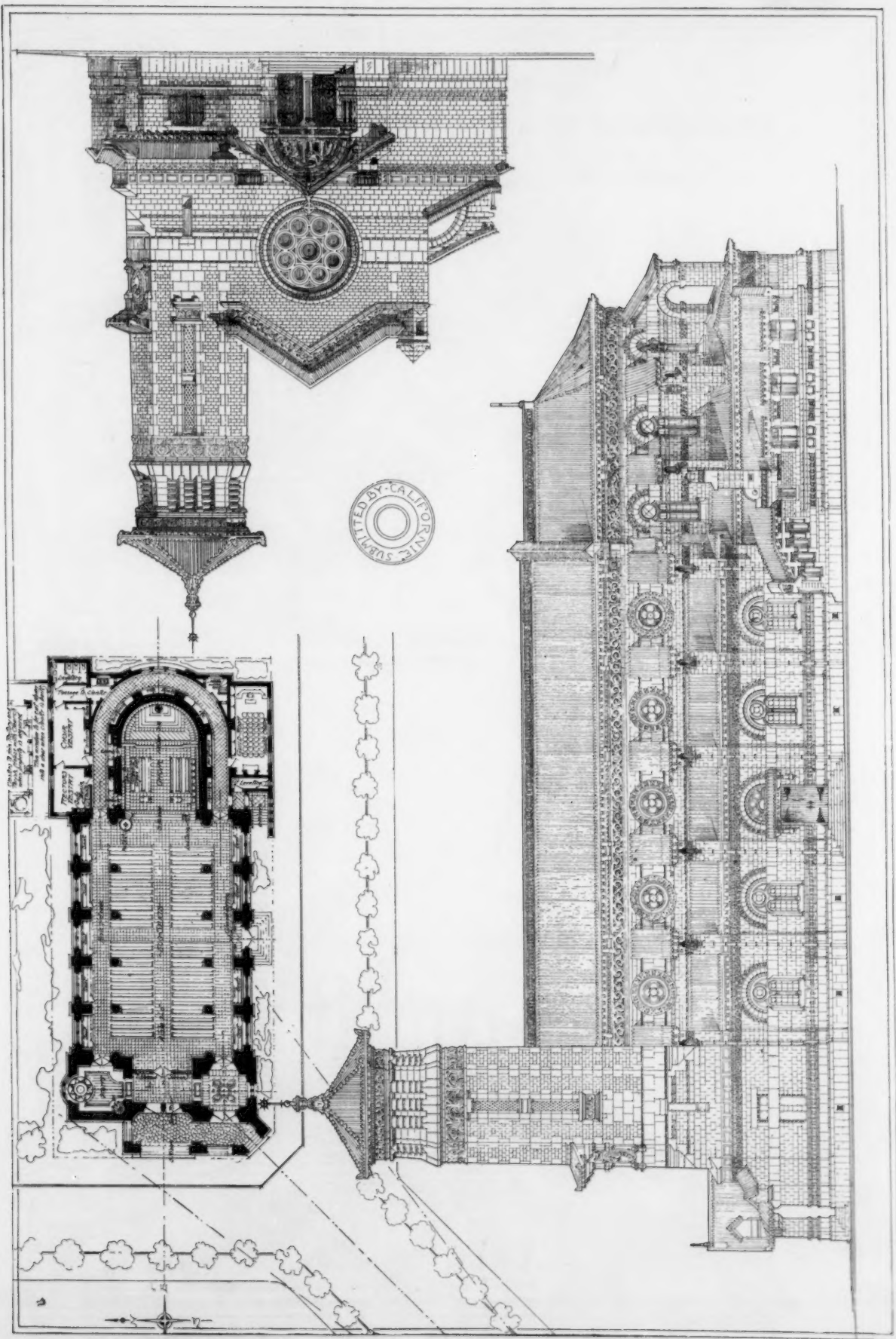
FRONT ELEVATION

SIDE ELEVATION

SUBMITTED BY GUSTAVUS A. TROST, EL PASO, TEXAS.



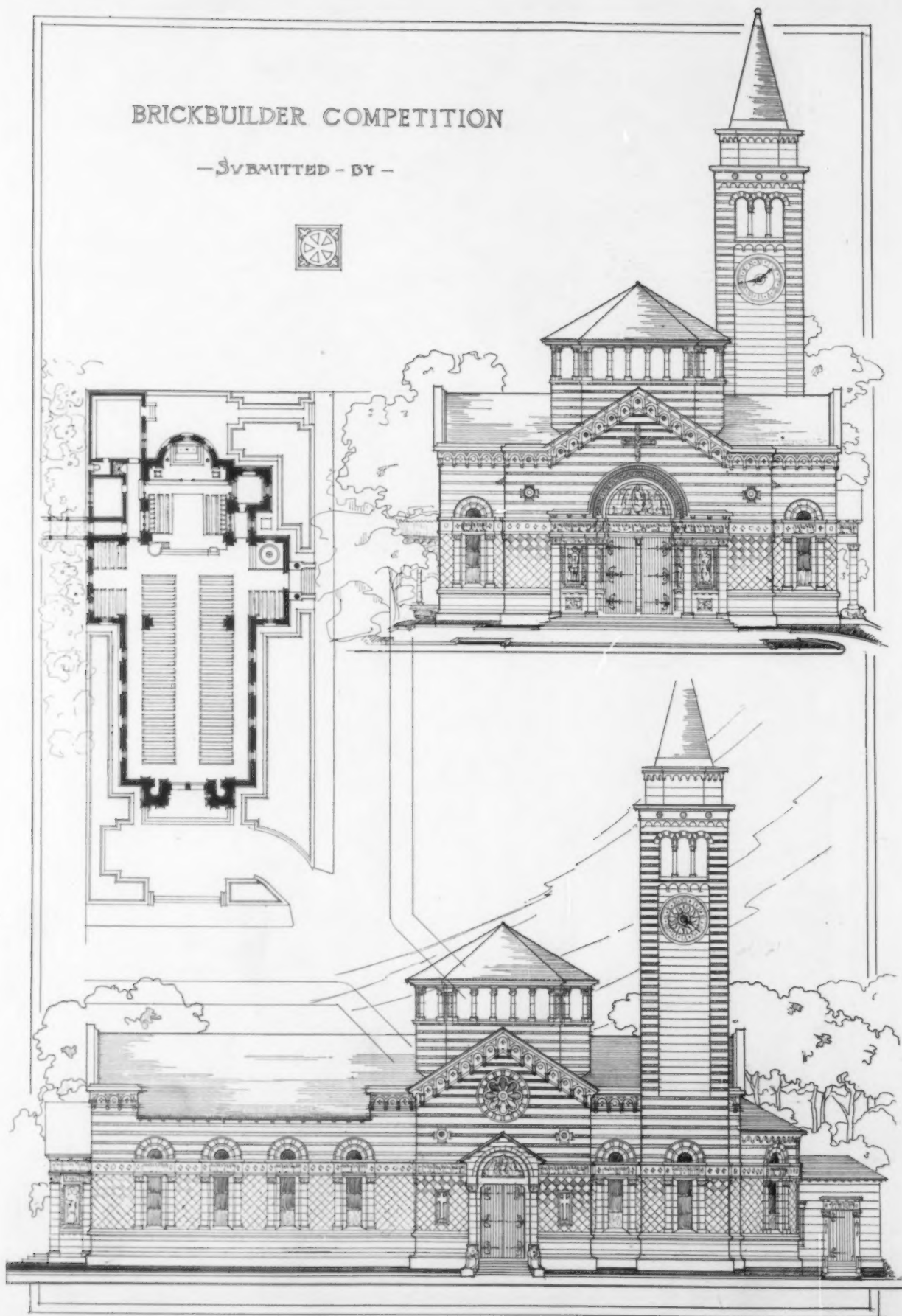
SUBMITTED BY H. S. PITTS, PROVIDENCE, R. I.



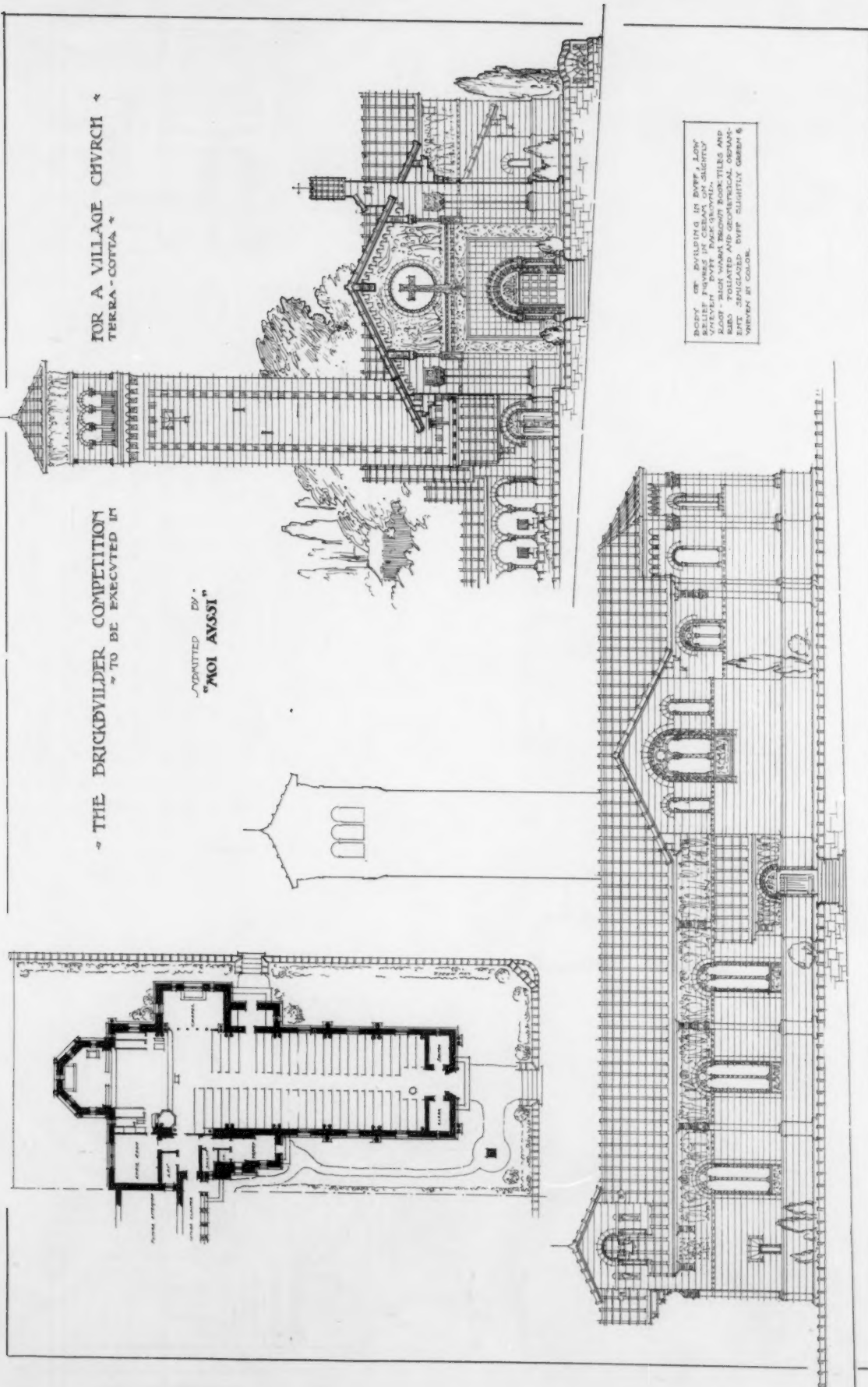
SUBMITTED BY A. DURANT SNEEDEN, PARIS, FRANCE.

BRICKBUILDER COMPETITION

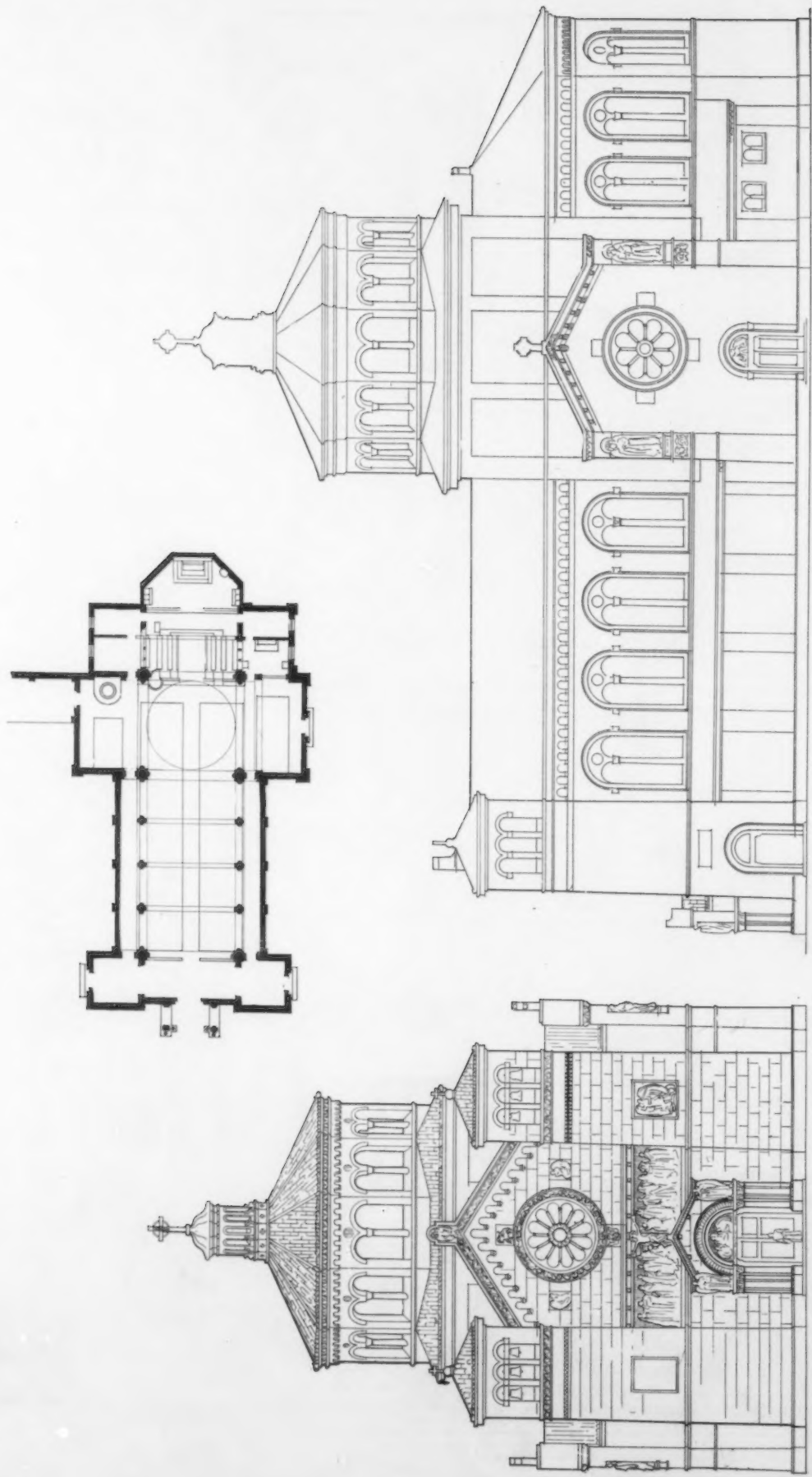
- SUBMITTED - BY -



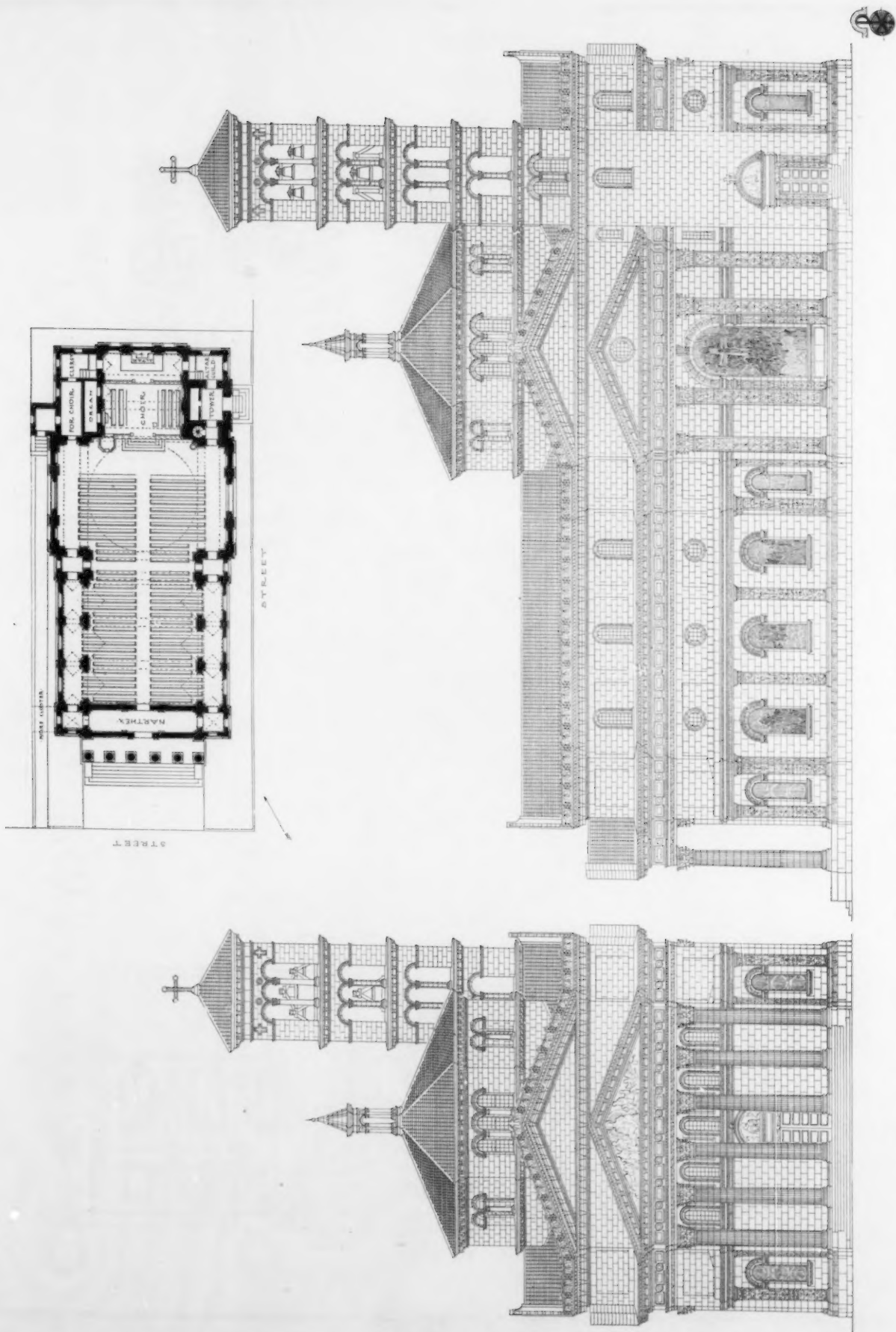
SUBMITTED BY FRANCIS A. NELSON, NEW YORK CITY, AND IRVING C. MOLLER, BOSTON.



SUBMITTED BY J. MELVILLE MILLER, MONTREAL, CANADA.



SUBMITTED BY DAVID D. BARNES, BOSTON, MASS.



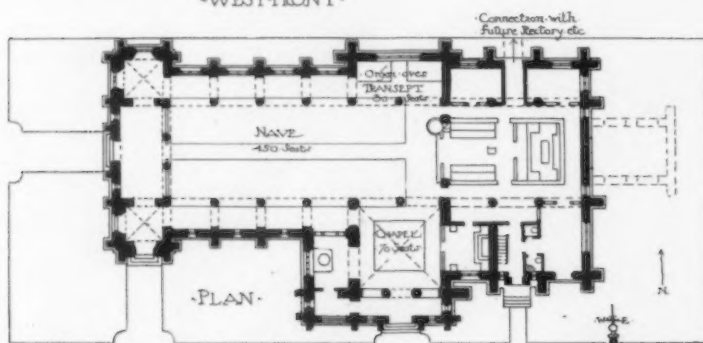
SUBMITTED BY WILL S. ALDRICH, NEW YORK CITY.



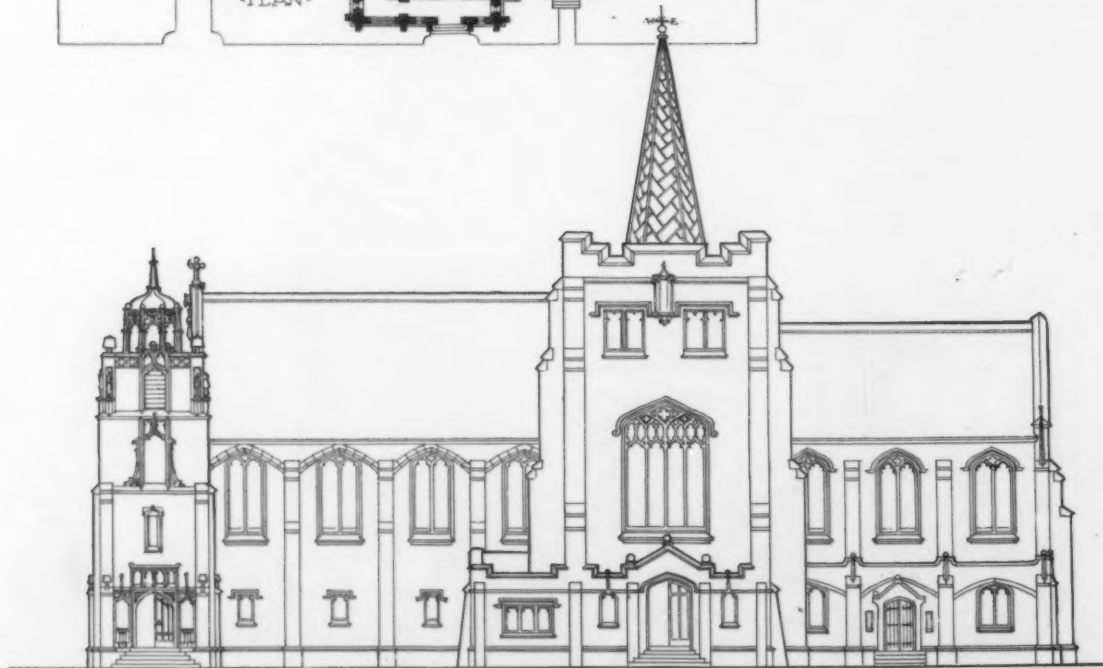
WEST FRONT

Eglise St Botolph

A Village Church
 in Terra Cotta for "The Brickbuilder"
 Trimmings a warm Grey. Main Wall
 Surface in blocks of Yellow Browns and
 Umbers. Occasional pieces treated
 in Semi-Glaze and mottled or more
 variegated in tone. All ornamental
 work is relieved by deepening the color
 of recessed surfaces to a dark blue or
 dull Green. The upper portions of
 Walls and Towers to be given a stron-
 ger color treatment than the lower parts



PLAN

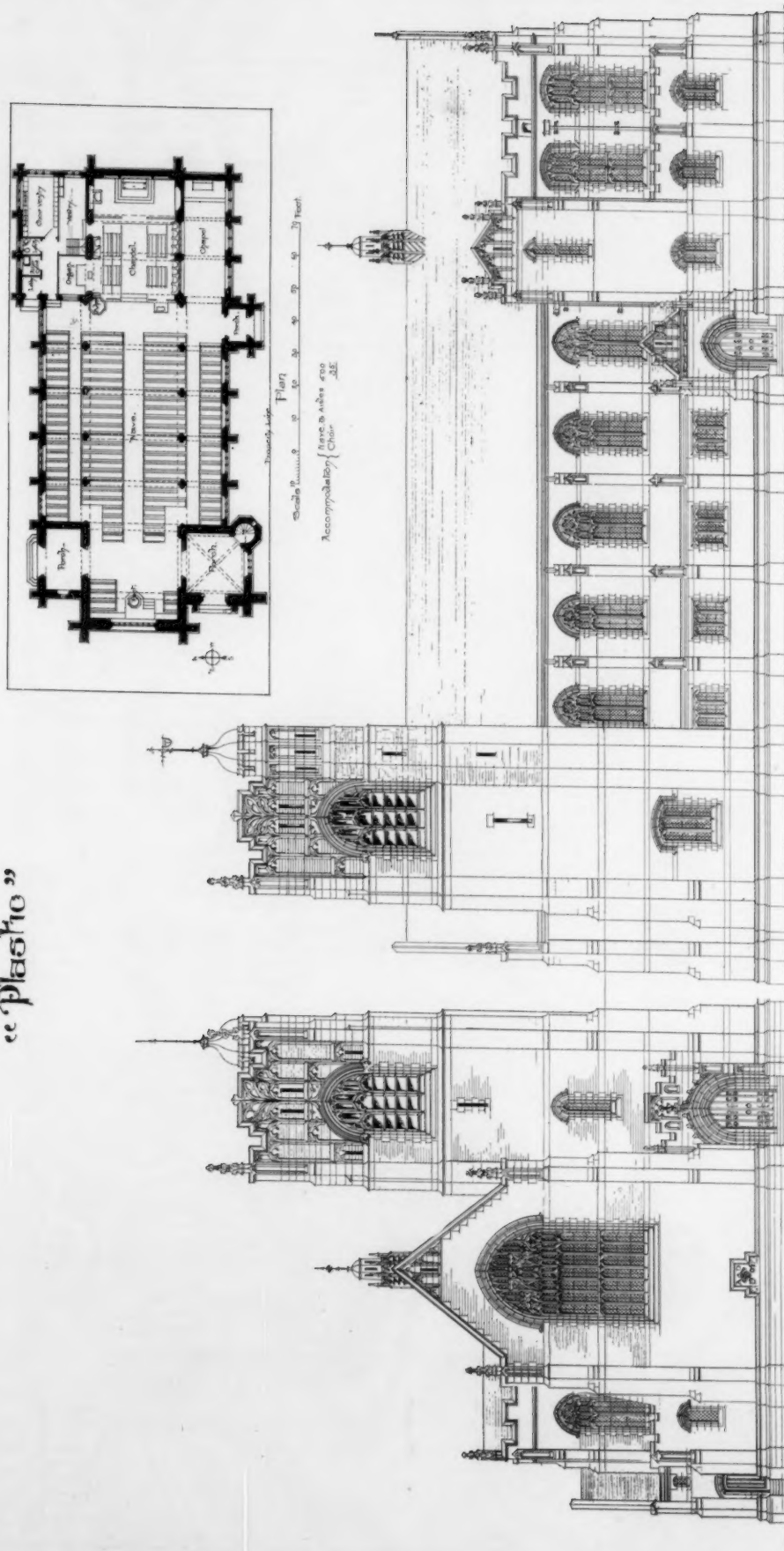


SOUTH FRONT

SUBMITTED BY FRANK C. BROWN, BOSTON, MASS.

Competition for a Village Church

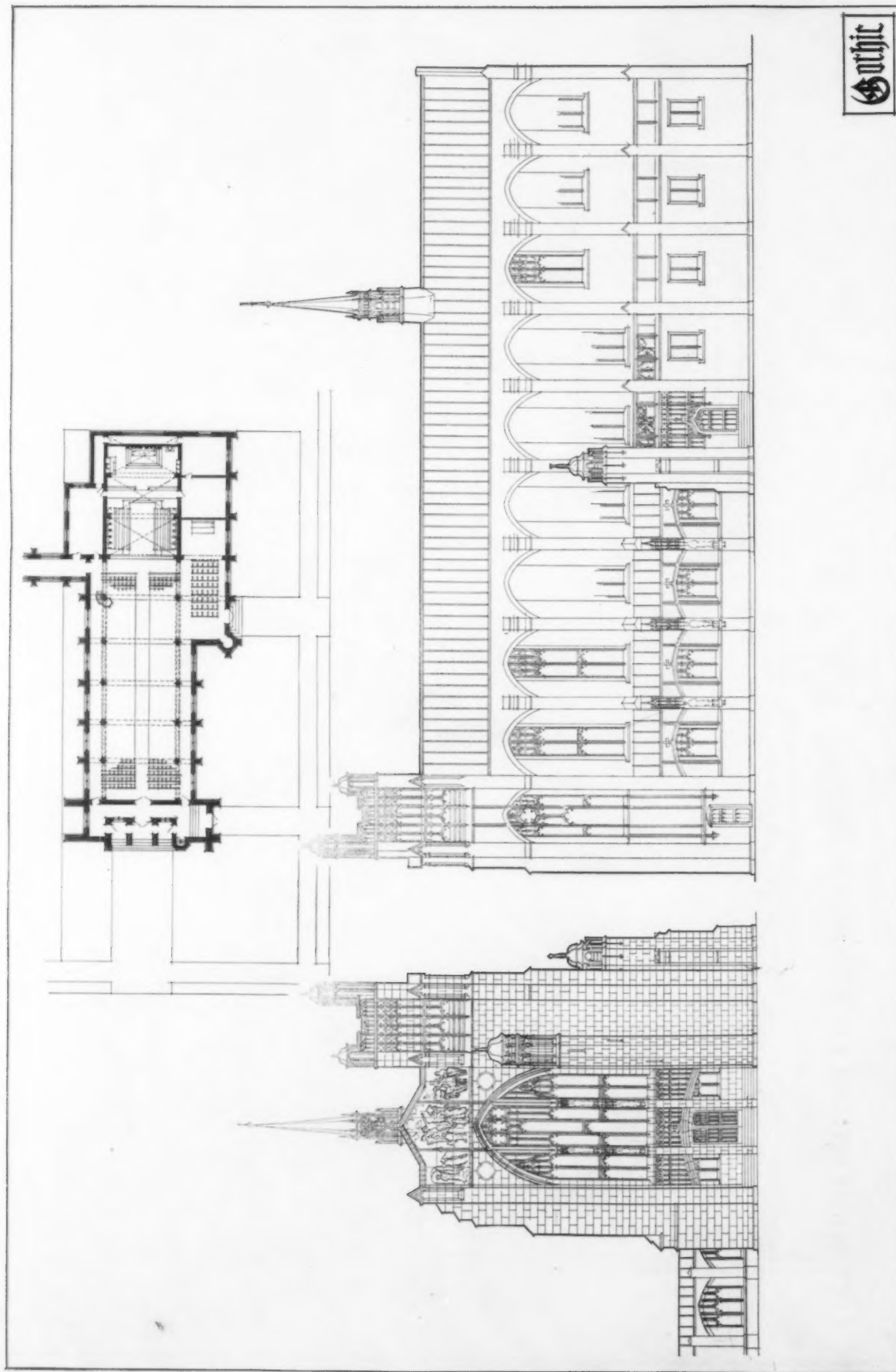
"Plastic"



West Elevation

North Elevation

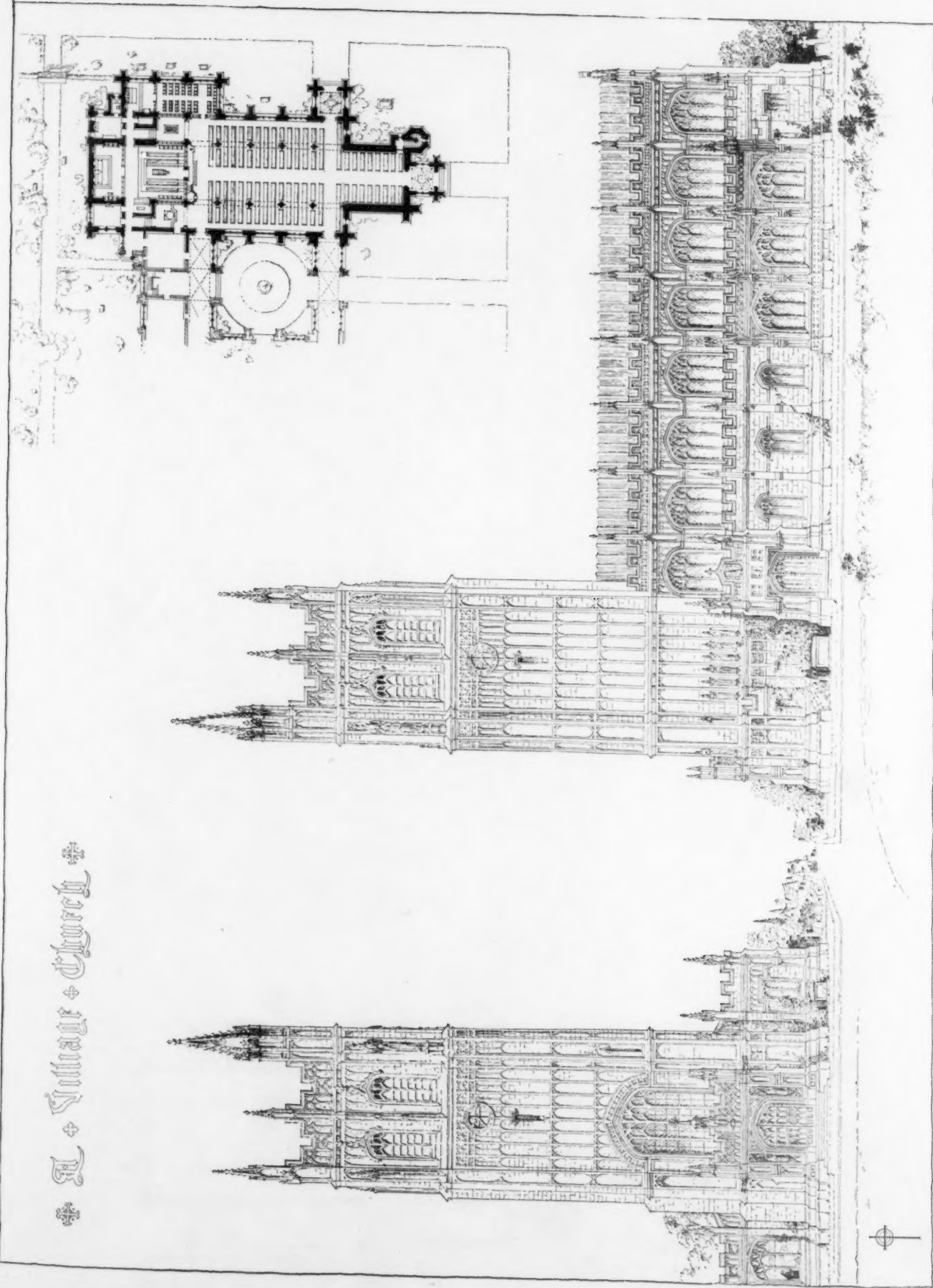
SUBMITTED BY J. HENRY EAMES, NEW YORK CITY.



Gothic

SUBMITTED BY HECTOR A. PAYNE, DETROIT, MICH.

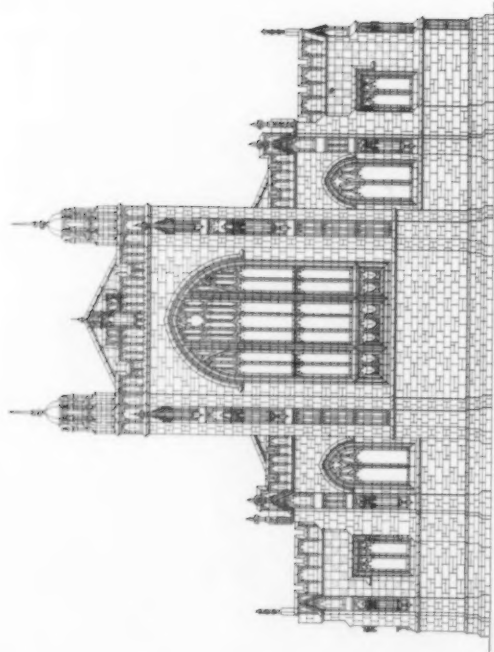
St. Village Church



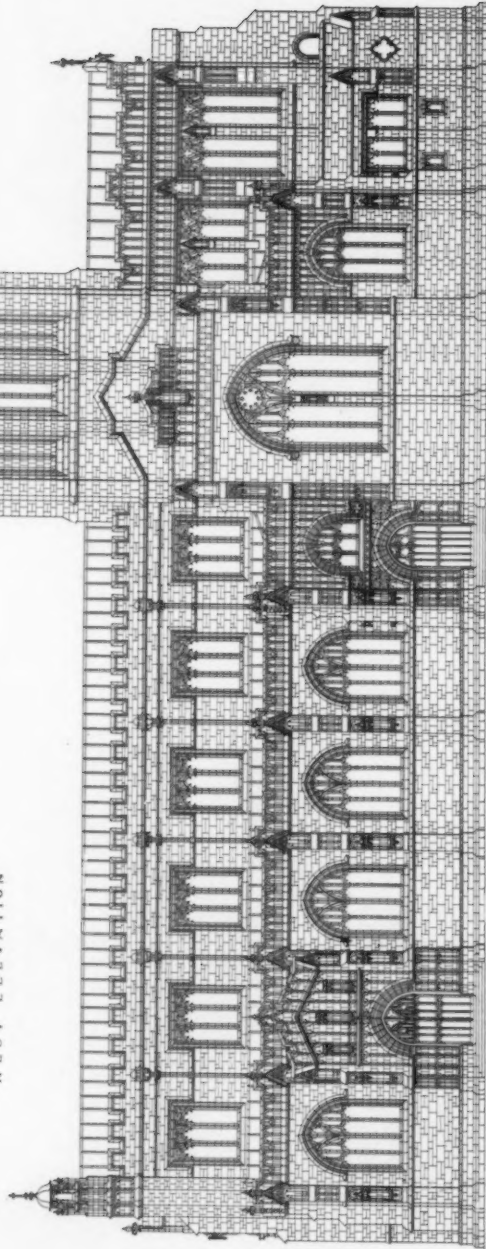
SUBMITTED BY HUTCHINS & FAELTEN, BOSTON, MASS.

SUBMITTED BY

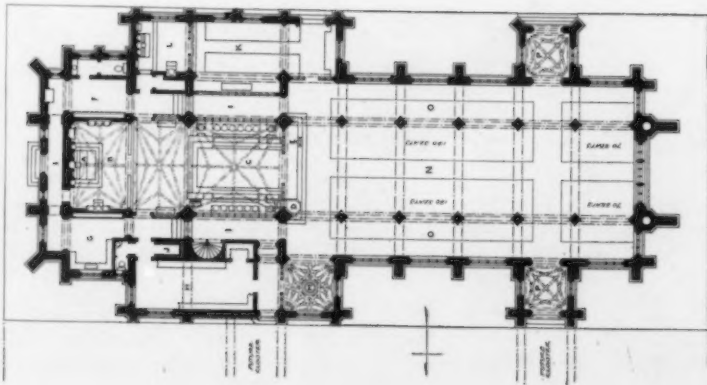
- INDEX
- A HIGH ALTAR J TREASURE VAULT
 - B SANCTUARY K CHAPEL
 - C CHOIR L CHANCEL SANCTUARY
 - D PULPIT M BAPTISTRY
 - E LECTERN N NAVE
 - F PRIESTS' SEAT O AISLE
 - G WORKING - P PORCH
 - H CHOIR ROOM THE ORGAN TOWER
 - I AMBULATORY SEPT. ALTAR CASE
- SCALE OF PLAN
1" = 10'
- SCALE OF ELEVATIONS
1" = 10'



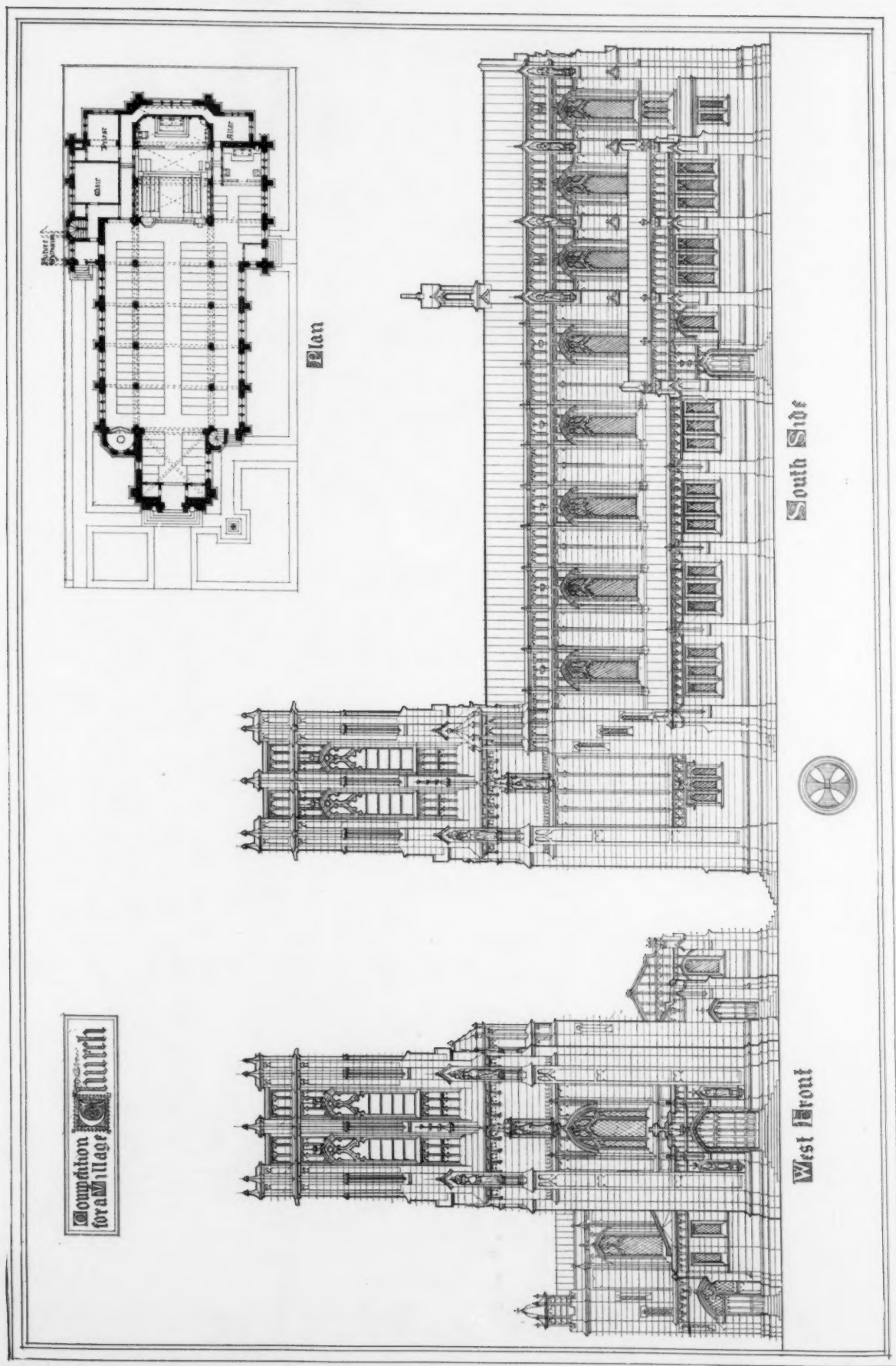
WEST ELEVATION



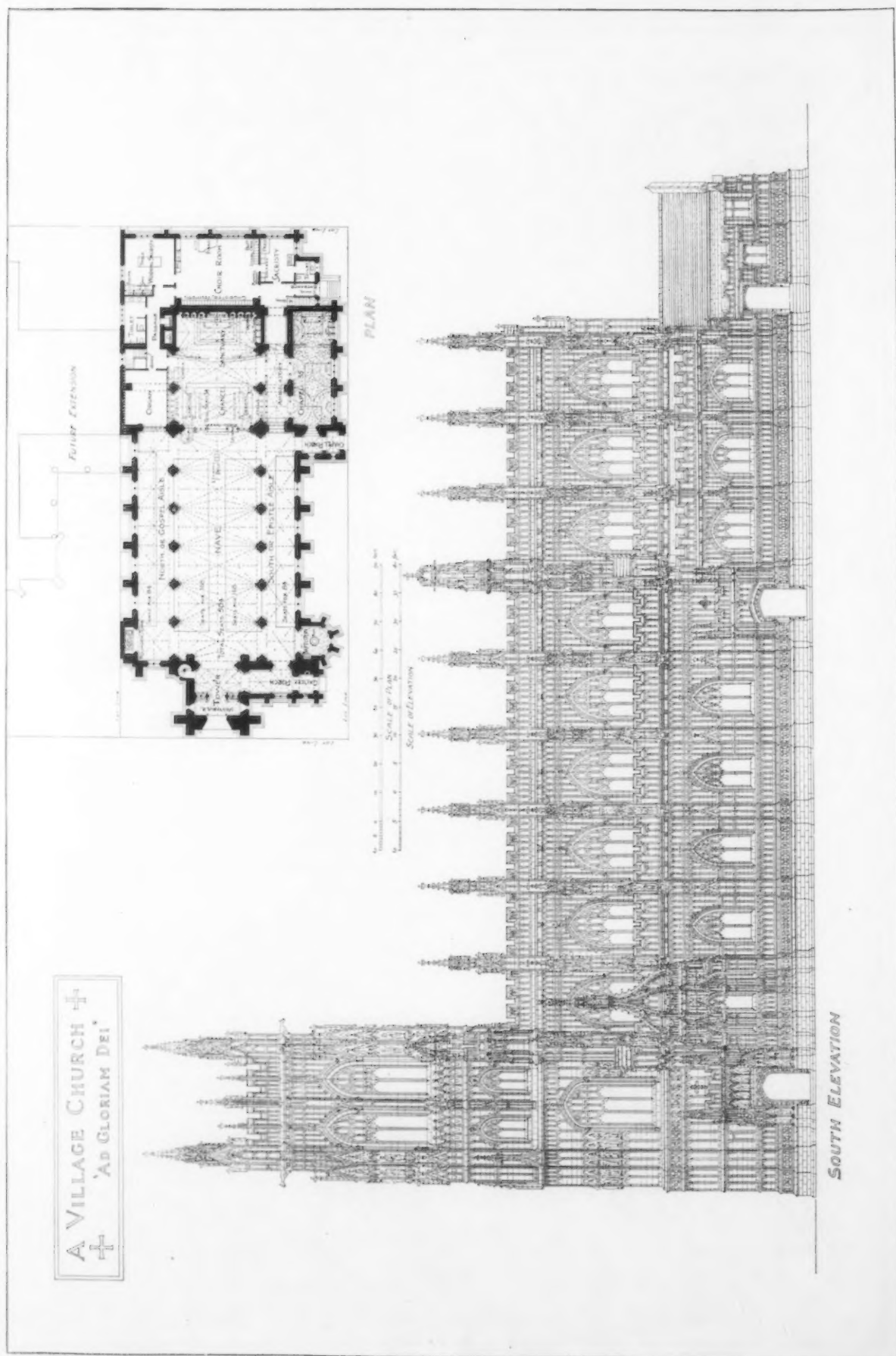
SOUTH ELEVATION
SUBMITTED BY EDWIN R. CLARK, LOWELL, MASS.



PLAN

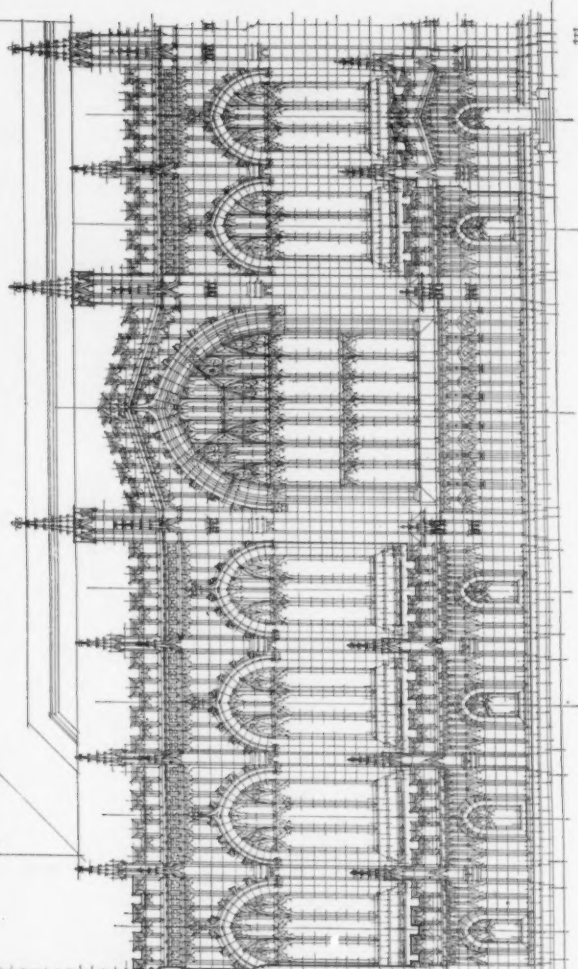
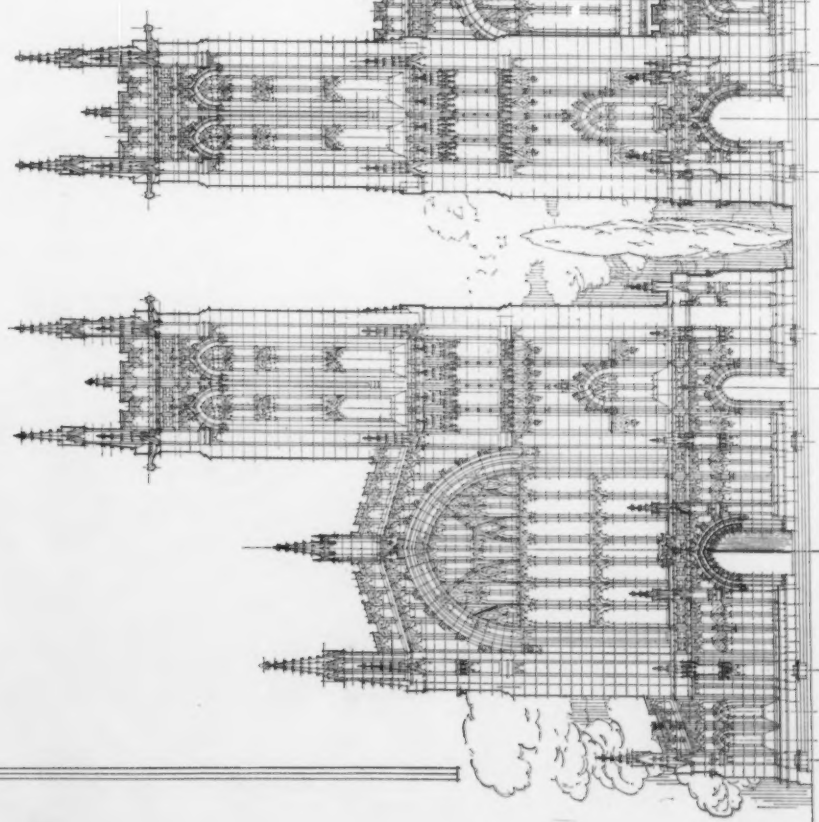
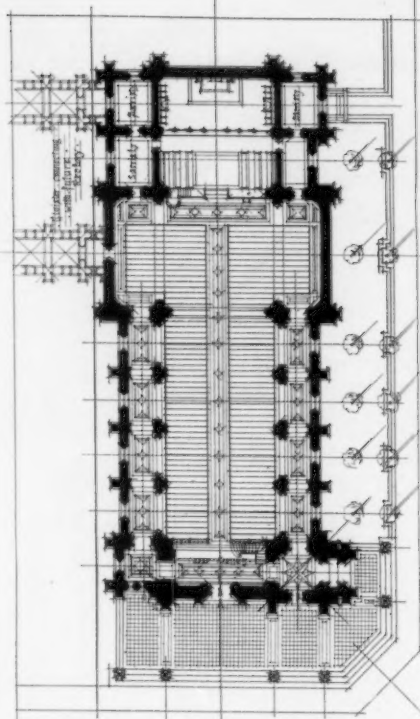


SUBMITTED BY ROBERT TURNER WALKER, BOSTON, MASS.

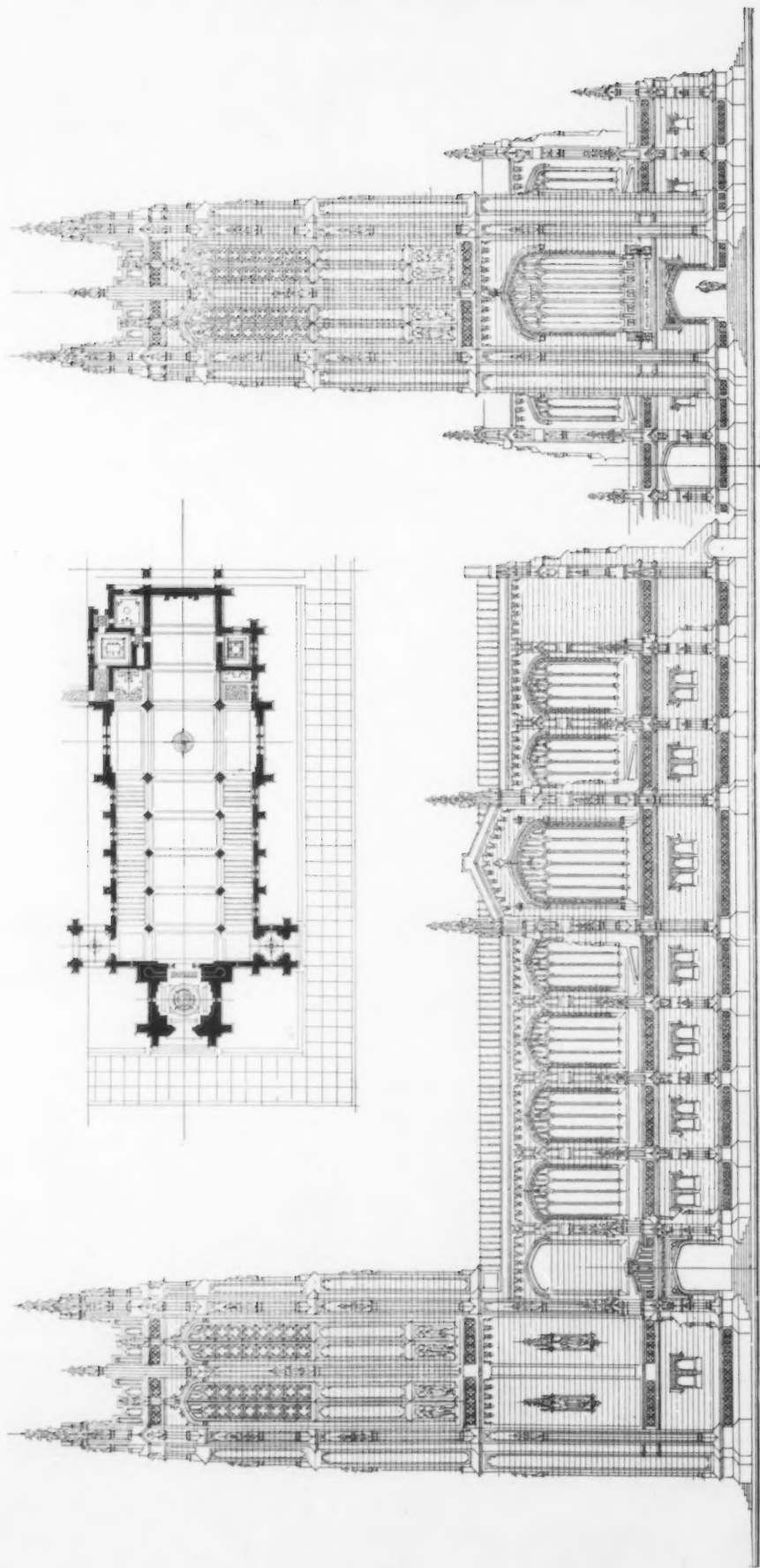


SUBMITTED BY JOHN SUTCLIFFE, CHICAGO, ILL.

Design for an Episcopal Church

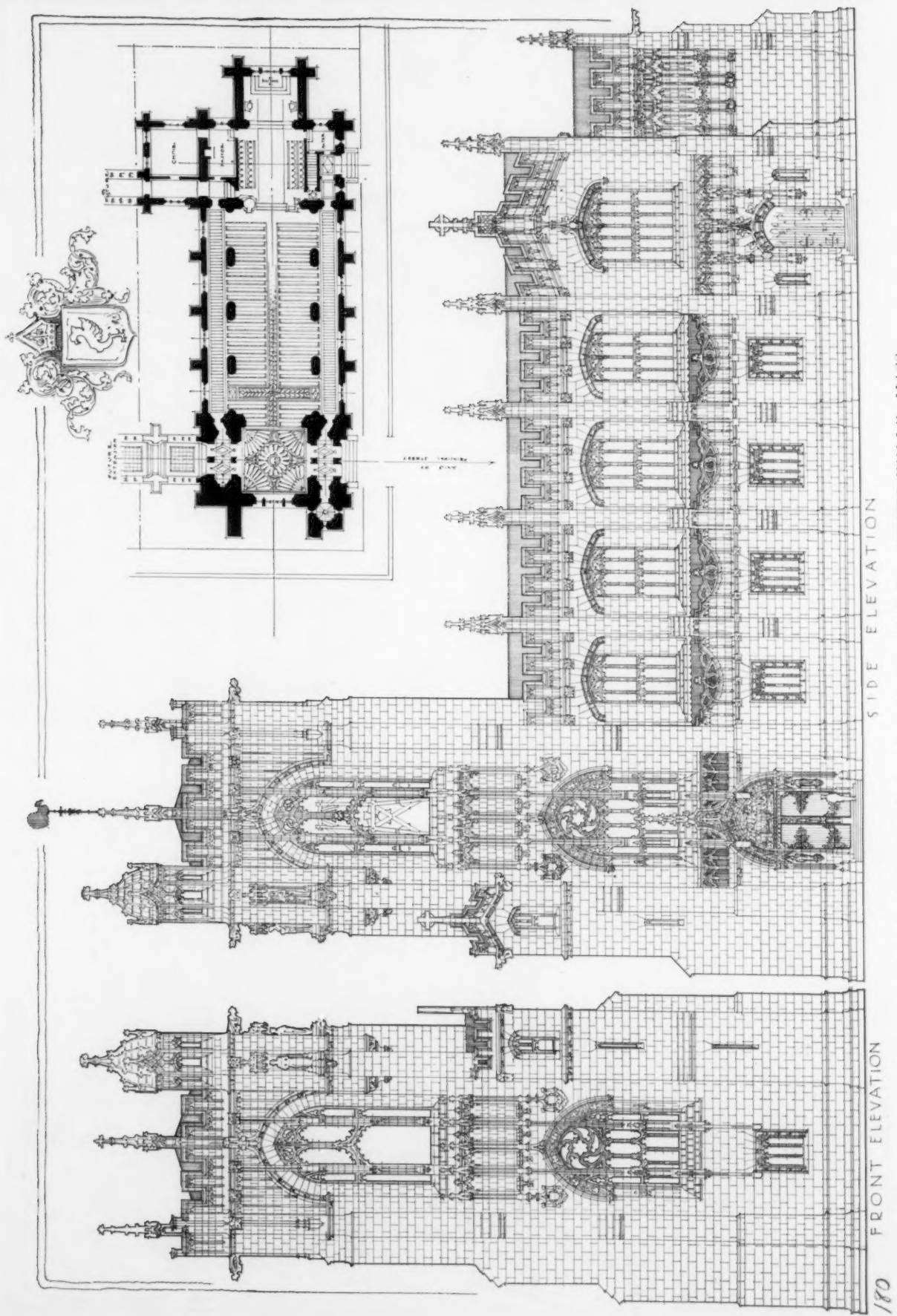


SUBMITTED BY WILLIAM L. JOHNSON, BOSTON, MASS.

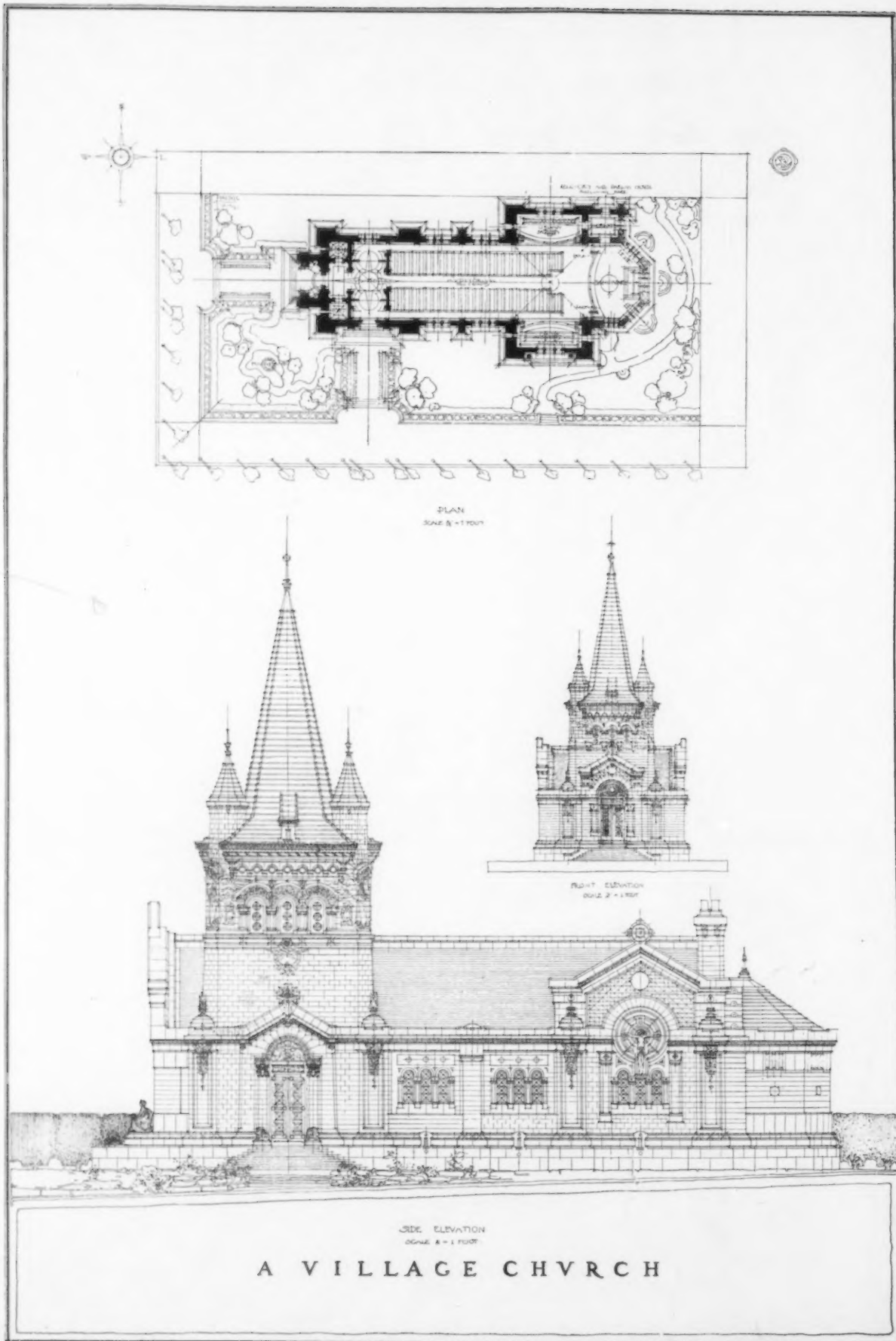


Episcopal Church of the Holy Trinity, New York City

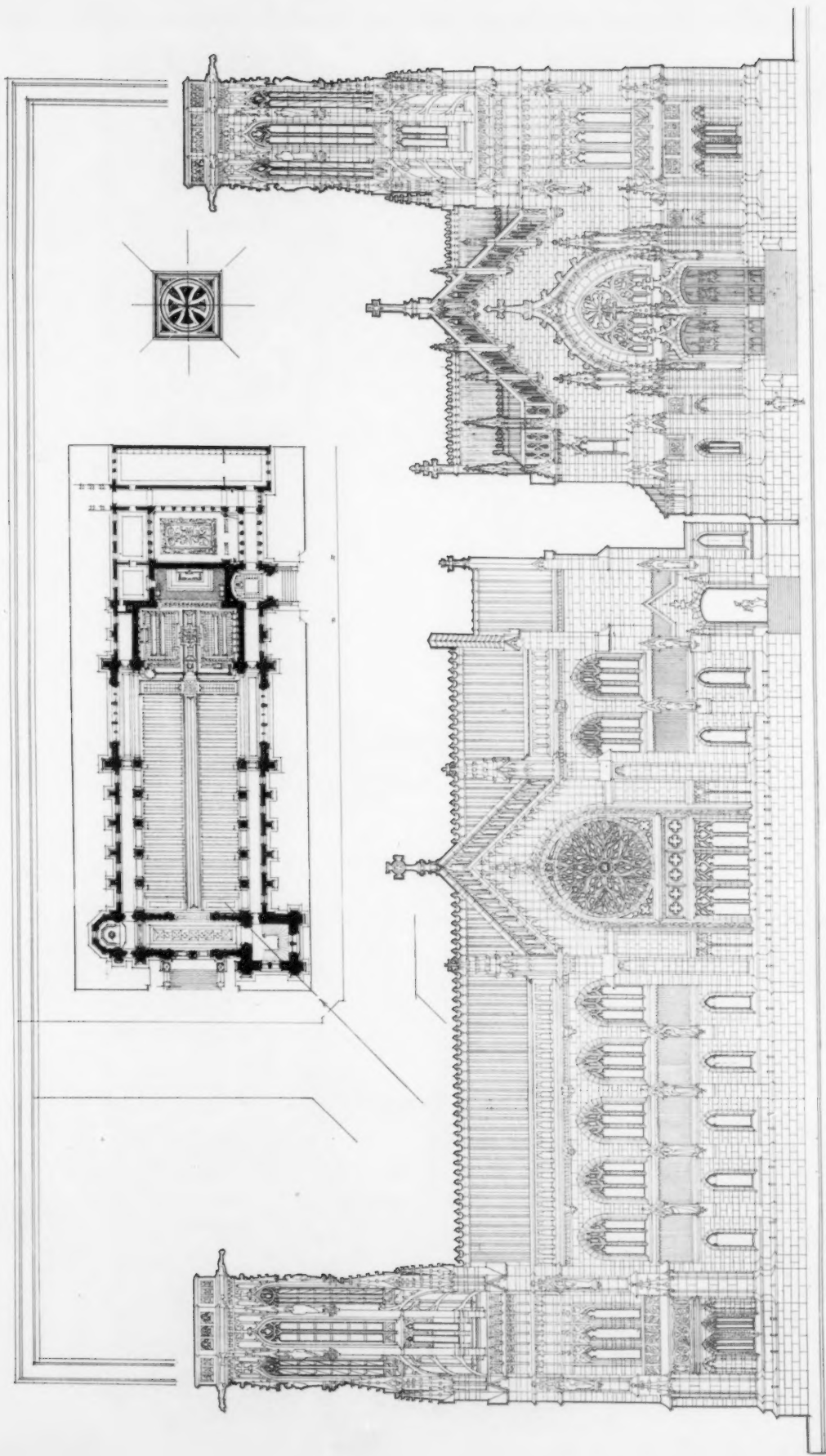
SUBMITTED BY WILLIAM D. CROWELL, BOSTON, MASS.



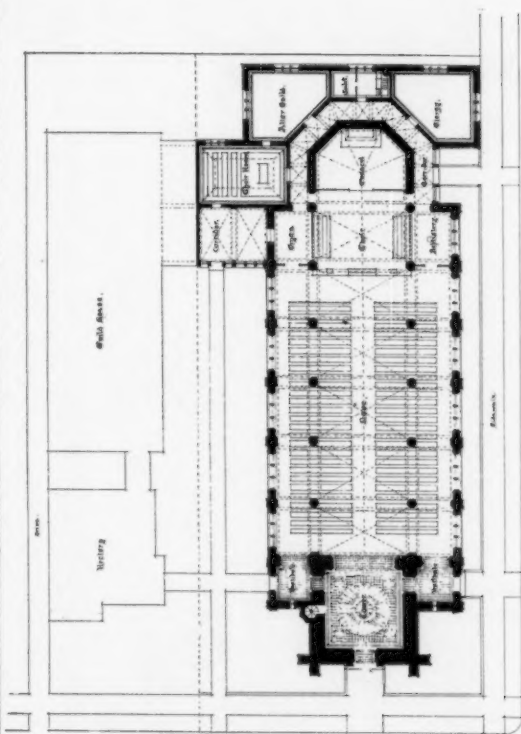
SUBMITTED BY HUBERT GEORGE RIPLEY, NEWTONVILLE, MASS.



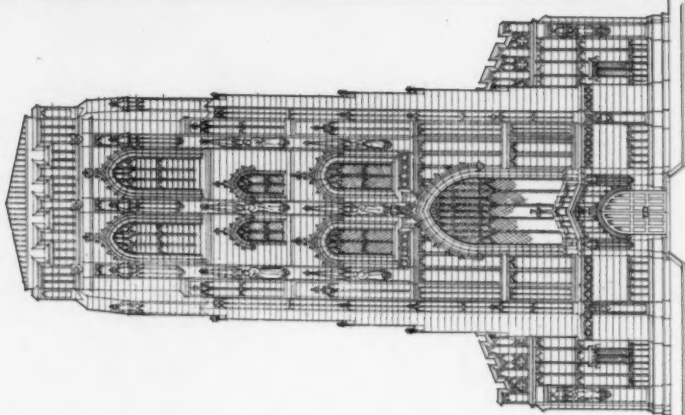
SUBMITTED BY ISRAEL P. LORD, SOMERVILLE, MASS.



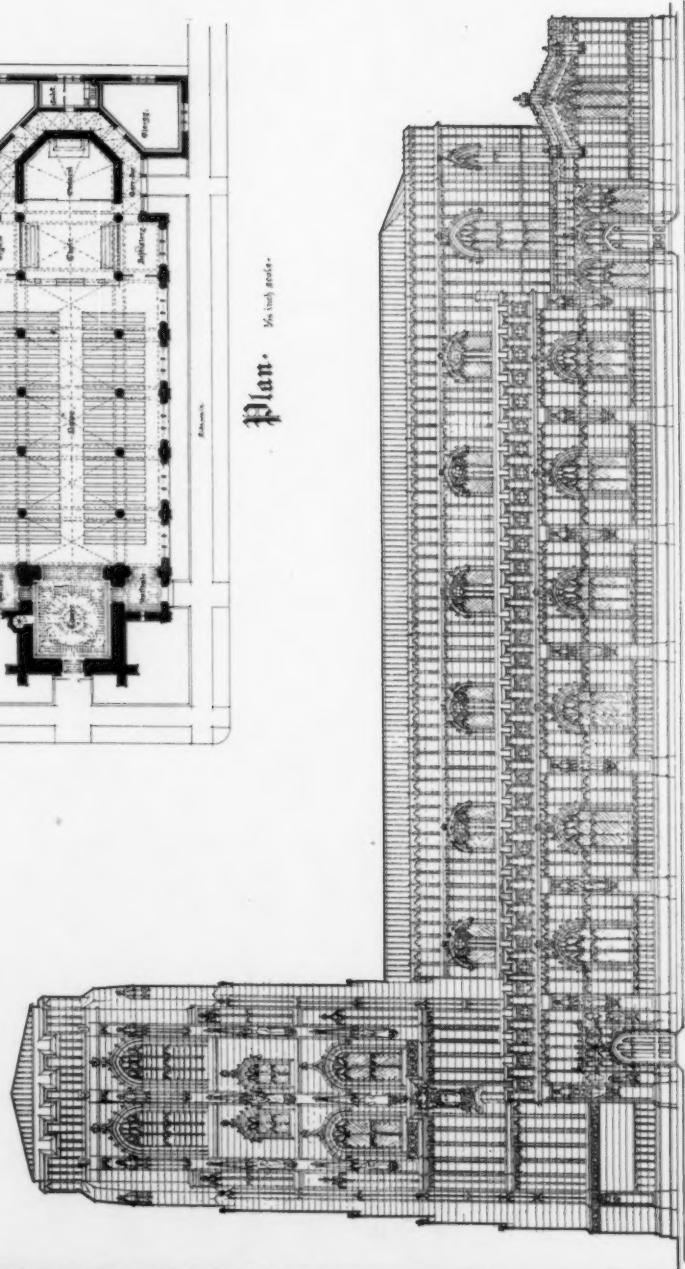
SUBMITTED BY KENNETH MACDONALD, JR., PARIS, FRANCE.



Plan.
See inside notes.



Front Elevation.



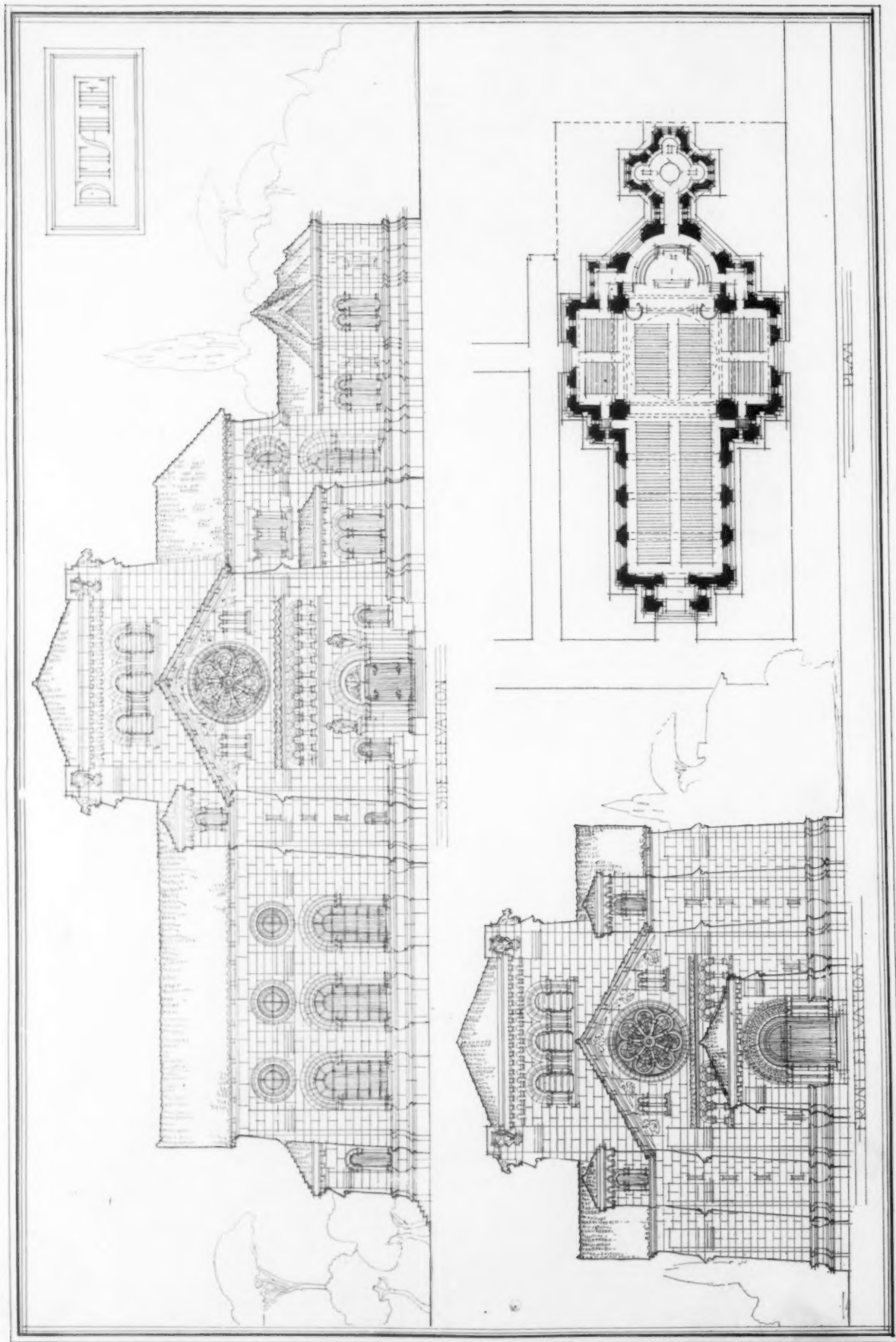
Side Elevation.



Submitted by



SUBMITTED BY EUGENE WARD, JR., NEW YORK CITY.



SUBMITTED BY R. I. DODGE, BROOKLYN, N. Y.